

**Kant and technics: From the *Critique of Pure Reason* to the
*Opus Postumum***

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Abstract

This dissertation aims to critically intervene in twentieth century European philosophical thought on technics, the discourse concerning skills, tools, instruments, and machines, as well as technology, the scientific meta-discourse on technics, by way of a critical reading and conceptualization of the role and meaning of technics for Immanuel Kant's transcendental philosophy. Starting from a critical analysis of Martin Heidegger, Gilbert Simondon, and Bernard Stiegler's thought on technics, I will show how Kant came to stand for a philosophy that could not, and, further did not think technics. Against Heidegger, Simondon and Stiegler, according to whom Kant was incapable of recognizing the technical problematic at the center of his philosophy, I argue that we should read Kant's philosophy as being constitutively shaped by an ongoing, developing concern for technics. Following a close reading of Kant's texts from the *Critique of Pure Reason* (1781) until his very last unfinished manuscript, the *Opus Postumum* (1796-1803), my project works chronologically through Kant's explicit references to technics (*die Technik*), as I aim to synthesize a concept of technics out of the Kantian text and lay out the role and meaning of technics through the various stages of Kant's thought. I will show that Kant did not only 'know' something about technics, but that his transcendental philosophy is essentially *of* technics, at once explicitly constituted against, while at the same time relying on, being built upon, and proceeding from technics. While the *Critique of Pure Reason* will be shown to be at heart a critique of instrumental reason, which is to be remedied by a two-fold critical program, both sides of which already harbor a positive concept of technics, it is in the final *Opus Postumum* that Kant will be seen to articulate the systematic place and vital role of technical-practical reason for the system of transcendental philosophy. The *Opus Postumum* charges technical-practical reason with the technical-practical task of world-building, and thus the cosmo-technical context for both the universal laws of science and any particular technical-practical action. Consequently, then, while for Heidegger, Simondon, and Stiegler, Kant came to stand for a philosophy that could not think technics, I aim to re-open the larger question concerning the relation between philosophy and technics through the restricted discussion of the relation between Kant and technics, and the concept of technics that I discover in the Kantian text.

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A critique is not a matter of saying that things are not right as they are. It is a matter of pointing out on what kinds of assumptions, what kinds of familiar, unchallenged, unconsidered modes of thought, the practices that we accept rest.... Criticism is a matter of flushing out that thought and trying to change it: to show that things are not as self-evident as we believed, to see that what is accepted as self-evident will no longer be accepted as such. Practicing criticism is a matter of making facile gestures difficult.

- Michel Foucault, *Practicing Criticism*

Table of Contents

INTRODUCTION	7
KANT AND/WITHOUT TECHNICS	7
THE PROBLEM AND THE PROMISE	10
OUTLINE	11
CHAPTER 1. TECHNICS, PERIODIZATION, AND THE ECLIPSE OF KANT IN THE TECHNICAL THOUGHT OF HEIDEGGER, SIMONDON, AND STIEGLER	16
CHAPTER 1.1 HEIDEGGER AND THE QUESTION OF TECHNICS	17
FROM <i>TECHNE</i> TO TECHNICS	18
THE SECOND TERM: THE HUMAN	21
HEIDEGGER AND THE HISTORY OF TECHNICAL THOUGHT	23
FROM METAPHYSICS TO TECHNICS	26
HEIDEGGER AND KANT	28
CHAPTER 2.2. SIMONDON AND THE PROBLEM OF TECHNICS	32
THE PROBLEM OF TECHNICS AND BECOMING IN SIMONDON'S <i>ON THE MODE OF EXISTENCE OF TECHNICAL OBJECTS</i>	34
SIMONDON'S HISTORY OF TECHNICAL THOUGHT	38
SIMONDON AND KANT	39
CHAPTER 1.3. STIEGLER AND THE REPRESSION OF TECHNICS	46
INTRODUCING STIEGLER'S FRAMEWORK OF EXHUMATION	47
STIEGLER'S ACCOUNT OF THE HISTORY OF TECHNICAL THOUGHT	50
PHILOSOPHICAL MODERNITY	52
THE "OLD METAPHYSICAL DOXA"	53
STIEGLER AND KANT	54
CHAPTER 1.4. A FUTURE FOR KANT DESPITE HEIDEGGER, SIMONDON, AND STIEGLER	59
CHAPTER 2. KANT'S CRITICAL PHILOSOPHY AND TECHNICS	62
CHAPTER 2.1 REASON'S DRIVE	64
THE <i>ORGANON</i> OF REASON	65
ELEMENTS, SOURCES, AND BOUNDARIES: THE <i>DOCTRINE OF ELEMENTS</i> AND THE CANON	67
THE CANON AND ITS TECHNICAL CRITIQUES	69
THE CANON, AN A PRIORI MANUFACTURE?	74
A PRIORI OPERATIONS (<i>HANDGRIFFE</i>)	75
CHAPTER 2.2 INSTRUMENTAL EXPANSION AND THE <i>TRANSCENDENTAL DOCTRINE OF METHOD</i>	81
THE EMERGENCE OF THE GERMAN TERMS <i>DIE TECHNIK</i> AND <i>DIE TECHNOLOGIE</i>	82
TECHNICS IN THE <i>TRANSCENDENTAL DOCTRINE OF METHOD</i>	88
INSTRUMENTALITY, TECHNICS, AND THE PROBLEM OF ADDICTION	91
THE DISCIPLINING OF REASON	94
CHAPTER 2.3 THE MANY FACES OF TECHNICS IN THE CRITICAL FRAMEWORK	99

CHAPTER 3. TECHNICS BETWEEN THEORY AND PRACTICE: THE CRITIQUE OF THE POWER OF JUDGMENT	102
CHAPTER 3.1 THE SYSTEM OF PHILOSOPHY AND THE PLACE OF TECHNICS WITHIN IT	104
CHAPTER 3.2 THE <i>CRITIQUE OF THE POWER OF JUDGMENT</i> AND THE PROBLEM OF NATURE'S UNRULY THINGS	109
CHAPTER 3.3 A TECHNICS OF NATURE	114
NATURE	114
TECHNICS	116
A HYPOTHETICAL RESTRICTION	118
CHAPTER 3.4 THREE KINDS OF TECHNICS	121
CHAPTER 3.5 THE RETURN OF THE PROBLEM OF TECHNICS	124
CHAPTER 4. TECHNICS IN THE <i>OPUS POSTUMUM</i>	126
CHAPTER 4.1 KANT'S <i>OPUS POSTUMUM</i> AND GERHARD LEHMANN	128
CHAPTER 4.2 TECHNICAL-PRACTICAL REASON IN THE <i>OPUS POSTUMUM</i>	133
ON THE RELATION BETWEEN FASCICLES VII AND I	140
CHAPTER 4.3 TECHNICAL-PRACTICAL REASON AND THE DOCTRINE OF SELF-POSITING	142
SELF-POSITING IN THE <i>OPUS POSTUMUM</i>	144
THE FIRST ACT OF SELF-POSITING	146
THE TRANSITION BETWEEN THE FIRST AND THE SECOND ACT OF SELF-POSITING	147
IDEAS, IDEALS, ORIGINAL IMAGES	149
GOD, THE WORLD, AND THE HUMAN	153
WORLD AND KNOWLEDGE OF THE WORLD	155
PHILOSOPHY IN THE WORLD CONCEPT	158
GOD, THE WORLD, AND THE HUMAN IN THE <i>OPUS POSTUMUM</i> , THE SYSTEM OF TRANSCENDENTAL PHILOSOPHY	159
REASON, SELF-POSITING AND TRANSCENDENTAL REFLECTION	163
TECHNICAL-PRACTICAL AND MORAL PRACTICAL-REASON	165
CHAPTER 4.5 TECHNICAL-PRACTICAL SELF-POSITING	169
THE PROBLEM OF CONSTRUCTION	173
SELF-AFFECTION AND APPEARANCES OF APPEARANCES	176
CHAPTER 4.5 CONCLUSION	180
CONCLUSION	182
BIBLIOGRAPHY	188

INTRODUCTION

Kant and/without technics

In 1936, the German *Akademie der Wissenschaften* published the first part of the *Opus Postumum* (*Nachlasswerk*), containing the hitherto unpublished manuscript on which Immanuel Kant had worked over the last decade of his life. In Fascicle I, which holds the chronologically last pages of the manuscript, Kant sketched out the following chapter outline, which bears witness to the systematic importance granted to technical-practical reason (*technisch-praktische Vernunft*) in the *Opus Postumum*:

Titelblatt u Vorrede

Die Welt als Universum

In allen diesen Objecten ein Maximum Idee ergo unicum in allen 3 Fällen

1. Die theoretisch//speculative
2. Die technisch practische
3. Die moralisch practische Vernunft

Aus Anschauungen, Begriffen a priori u Ideen

Die Idee der Freiheit führt durch den categor. Imperativ auf Gott

1. die speculative
2. die practische
3. die technisch//practische
4. die moralisch//practische Vernunft in einem System¹

¹ OP 21:44.

“Titlesheet and Preface

The world as universum

In all these objects, a maximum: idea, *ergo unicum* in all three cases

1. theoretical-speculative [reason]
2. technical-practical [reason]moral practical reason

Evidently, Kant had planned to include technical-practical reason (*technisch-praktische Vernunft*) as part of his final system of transcendental philosophy. At the very end of his life, Kant seems to have planned to systematically treat technical-practical reason on a par with theoretical, practical, and moral-practical reason, and thus as a vital part of his system of transcendental philosophy. Differently to theoretical and pure practical reason, however, technical-practical reason had not been subjected to a critique. As a problem of empirical philosophy, it had had no need of a preliminary critique. Kant had, of course, written a third critique, which was furthermore tasked with the important function of bridging theoretical and practical reason. It was, however, not a critique of reason, but instead of the power of judgment.

As the chapter outline shows, the *Opus Postumum* places technical-practical reason in between theoretical and practical reason proper, indicating that technical-practical reason might have taken over the systematic role of bridging theoretical and practical reason. Furthermore, as the German philosopher and editor of the *Opus Postumum* Gerhard Lehmann pointed out, the *Opus Postumum* contains the outline to what would have been Kant's third critique of reason, this time addressed to reason in its technical-practical use.² On a meta-level, then, technical-practical reason not only bridges theoretical and practical reason, but furthermore provides the ground to conjoin the two terms in the title of this dissertation, as the *Opus Postumum* holds what can only be understood as a Kantian thought on technics.

In his 1954 *Die Frage nach der Technik* (The Question Concerning Technics), and thus almost two centuries after the beginning of the Industrial Revolution, Martin Heidegger argued that still the right questions concerning technics had not been asked. Addressing both philosophy and culture at large, Heidegger was not the only philosopher who, in the years immediately following the devastating events of World War II, problematized a fateful oversight and forgetting of technics. In his 1958 *On the Mode of Existence of*

-
- From intuitions, *a priori* concepts, and ideas.
 The idea of freedom leads, through the categorical imperative, to God
 1. speculative [reason]
 2. practical [reason]
 3. technical-practical [reason]
 4. moral-practical reason in one system"

² Lehmann, G., 1969. *Die Technik der Natur*. In *Beiträge zur Geschichte und Interpretation der Philosophie Kants*. Berlin: Walter de Gruyter & Co., p.289. First published in 1938 in: *Forschungen und Fortschritte*, 14. Jg. Nr. 18, p.212-21.

Technical Objects,³ Gilbert Simondon claimed that technics must be understood as philosophy's aporia, meaning that philosophy is structurally incapable of seeing, let alone addressing, technics. Yet further to this, and in a similar vein to Heidegger, Simondon also located this problem in culture as a whole, which, he wrote, "has constituted itself as a defense system against technics."⁴ Following both Heidegger and Simondon, Bernard Stiegler had the first installment of his *Technics and Time* series published in 1994. Repeating Heidegger and Simondon's criticisms a near fifty years later, Stiegler states that the history of philosophy must ultimately be understood as the history of the repression of technics by philosophy.

According to all three of these thinkers, philosophy's aporia reaches its clearest expression in one of modernity's most prominent techno-oblivious philosophers, Immanuel Kant. According to Heidegger, Kant articulated the essence of modern technics as enframing (*Gestell*) under the name of the *Transcendental Analytic* without understanding the nature of his own insight, while Simondon claimed that technics is the one question that transcendental philosophy is incapable of answering, since its answer will either come too early (a priori) or too late (a posteriori). Stiegler synthesizes both positions in his claim that Kant was incapable of seeing the technical constitution of his own consciousness. What becomes clear, then, is that all three thinkers argue, in their own way, that Kant was essentially incapable of seeing, understanding, let alone thinking, technics.

This situation is underlined by the striking absence of references or discussions of Kant's explicit writing on technics, as if he had had nothing to say on the subject. To say with Heidegger, Simondon, and Stiegler that Kant does not speak of technics means that, ultimately, Kant does not have a future beyond the status of the symptom granted to him, because philosophy's task in the present conjunction, these three thinkers claim, has become to think technics. According to these three self-proclaimed thinkers of technics, technics is thus philosophy's symptom, and Kant's transcendental philosophy has become the symptom of a philosophy that could not think technics. Thus, what in the first paragraph initially appeared as an easy conjunction, innocently inquiring into the relation between Kant and technics, is forcefully undercut by the history of philosophy as told by Heidegger, Simondon, and Stiegler. Rather than going by the name of *Kant and technics*, should the title of this dissertation then rather read *Kant without technics*?

³ Simondon, G., 2017. *On the Mode of Existence of Technical Objects*. Translated into English by C. Malaspina, J. Rogove. Univocal.

⁴ Ibid., p.15.

The Problem and the Promise

At the center of this dissertation lies an essentially two-fold problematic. In what follows, I will argue against Heidegger, Simondon, and Stiegler that there is indeed an explicit concept of technics at work in Kant's philosophy. As the following discussion will show, this concept is not *a* technics that was overlooked by Heidegger, Simondon, and Stiegler, but it is rather the case that transcendental philosophy must be understood as *of* technics. As a philosophy *of* technics, transcendental philosophy does not topically engage with technics as a possible object of inquiry amongst others. What I will show is that transcendental philosophy is at once explicitly constituted against, while at the same time relying on, being built upon, and proceeding from, technics. The aim of my thesis is to show that the conjunction "*and*," correlating the two terms in the title of this discussion, is subject to development over time, as its meaning changes together with the trajectory of Kant's thought from the *Critique of Pure Reason* (1781) to the *Opus Postumum* (1796-1803).

On the other hand, however, and in asking about the relation between Kant and technics, this dissertation also enquires into the wider relation between philosophy and technics. Heidegger, Simondon, and Stiegler all claim that philosophy has a problematic relation to technics, in the sense that it is structurally incapable of seeing, recognizing, or remembering its own, essentially technical, constitution. Each in their own way can be seen to put forward their respective thought on technics in contradistinction to philosophy through the act of questioning (Heidegger), problematizing (Simondon), or remembering, in the sense of inventing, technical thought anew (Stiegler). Their conceptual arguments are supported and warranted by their reading of the history of philosophy as the history of philosophy's technical oblivion. The methodological challenge faced by each of the three thinkers is great, since they must all, in one way or another, be able to ask, problematize, or remember the hitherto structurally impossible. While the singularity of their own position, both epistemologically and methodologically, is a problem that each of them must address, the methodological role played by the history of philosophy is clear. Philosophy must harbor the resources for thinking or remembering technics, but only ever implicitly.

The account of the history of technical thought told by Heidegger, Simondon, and Stiegler is thus narrow and simple. In broad strokes, they all put forward a quasi-universal concept

of technics, geographically and politically undifferentiated while being historically differentiated into the first, pre-industrial, artisanal *techne*, followed by the second, industrial, modern technics. However, if there is indeed such a thing as a Kantian thought on technics, and if that technical thought falls outside what has here been presented as the simple two-form schema, then Kant can no longer play the role of philosophy's most prominent techno-oblivious thinker, and the question of the relation between philosophy and technics as a whole will need to be re-opened; the history of philosophy will need to be reinvestigated from the point of view of possible other technics, as there might be, despite Heidegger, Simondon, and Stiegler's inability to see them, explicit philosophical resources for thinking technics in the history of philosophy. At stake in the restricted question about the relation between Kant and technics is thus ultimately the relationship between philosophy and technics as a whole.

The promise of the opening encounter with Kant's projected chapter outline in the *Opus Postumum* is that there is indeed a positive and explicit notion of technics at play in Kant's thinking. As I will argue, this notion is at once developed out of the specifically German context surrounding Kant, responding to the medieval scholastic German notion of *Technologie* as well as to Johann Beckmann's newly founded science of *Technologie*, and at the same time engaged with the Aristotelian notion of *techne*. Furthermore, however, Kant's notion also harbors resources for thinking technics from a higher standpoint, as technical-practical reason systematically charges itself with the technical-practical task of world-building. Technical-practical reason would thus have the role of forming the cosmo-technical context from which specific notions of technics can then, in a second step, derive their specific meaning and position.

Outline

This dissertation is organized according to four chapters. The first chapter will set the scene by laying out in more detail the field and history of technical thought according to Heidegger, Simondon, and Stiegler. The problem addressed by this chapter is that of shining a light on the details of the paradoxical role occupied by Kant and transcendental philosophy within both the field of technical thought and its history, as presented in Heidegger, Simondon, and Stiegler's respective projects. In this regard, each thinker will be discussed first on their own concerning their technical thinking, secondly via their reading of the history of philosophy, and finally through Kant's role within both their thinking and their projected history of technical thought.

In Chapter 2 I will leave behind Heidegger, Simondon, and Stiegler's writings in order to begin the task of reading Kant on his own terms. At a first glance, Kant's world of universal and necessary forms of thought – the transcendental – surely seems removed from the world of technics, with its problems of technical production and instrumentality, as thematized in Heidegger, Simondon, and Stiegler. From a methodological perspective, however, I will argue that technics is the implicit problem that Kant ascribes to reason, warranting the *Critique of Pure Reason* as a whole. According to Kant, reason is addicted to speculative expansion by means of the instrument of logic. The explicit aim of the *Critique of Pure Reason* is thus to counteract reason's instrumental transgressions by way of a two-fold critical program. Firstly, Kant will venture to restrict what theoretical reason wants, drives, or strives to know to what it "can" know, meaning that reason's ends and questions are to be set in relation to its own proper powers, its faculties and forces under the name of a canon. Following the canon laid out in the *Transcendental Doctrine of Elements*, the subsequent *Transcendental Doctrine of Method* continues by asking what reason can do with these materials. I will show that, according to Kant's lexicon, questions of method constitute the properly speaking "technical" part of logic. Following the work of German Linguist Wilfried Seibicke, I will show that Kant employed the term technics (*die Technik*) in line with the medieval scholastic notion of *Technologie*, which he shortened to *die Technik*, in order to refer to methodological problems of terminology and the systematization of terms. At the same time, however, the technical doctrine of logic will also take recourse to a second genealogy of technics, under the name of a discipline of reason. Only after reason has been disciplined and its skill and talent (its *techne*) has been worked upon will reason want what it can have, as its ends will now have been set in accordance with what it can do.

While Kant's explicit discussion of technics takes place in regards to method, Chapter 2 will also show that both Heidegger and Stiegler's symptomatic readings of technics in Kant consider the *Transcendental Analytic*, and thus the canon, as the place of Kant's implicit technics. I will furthermore show that Heidegger and Stiegler were not the first to have read the canon put forward by Kant as containing a technical problematic. In a scholarly discussion between Kant and his contemporary J.G. Schlosser,⁵ Kant was already accused of having reduced cognition to "a mere form-giving manufacture [*Formgebungs-*

⁵ This was first brought to my attention by Catherine Malabou's in *Before Tomorrow: Epigenesis and Rationality*. Translated into English by Shread, C. Cambridge: Polity Press, 2016. p.6.

Manufactur].”⁶ Despite Kant’s dismissal of the critique, I will show that Kant insists on the distinction between the operations (*Handgriff*, grasping by hand) performed by the power of judgment in schematization and concepts (*Begriff*) of the understanding precisely in order to avoid the aporia of judgment, namely the infinite need for ever further rules to legislate the application of rules. Consequently, schematization will turn out to be quite literally a manufacture, and thus dependent on a hidden art (*eine verborgene Kunst*), with art here referring to a general notion of *techne*, designating the general skill (*Können*) and capacity of grasping by hand. Thus while initially put forward by Kant as a remedy to reason’s instrumentality, the canon will be shown to rely on an art, and thus on technics in the general sense.

Chapter 2 will reveal the surprisingly central place occupied by instrumentality and technics in Kant’s critical project. When it comes to Kant’s explicit engagement with the concept, however, technics (*die Technik*) is only mentioned a total of six times throughout the *Critique of Pure Reason*. It is thus all the more remarkable that, in all its grammatical forms, the term technics was mentioned a near five hundred times in the *Critique of the Power of Judgment*, published a mere nine years after the first edition of the *Critique of Pure Reason*. Chapter 3 will argue that the *Critique of the Power of Judgment* picks up precisely where Kant had left off in the *Critique of Pure Reason* when he called schematization a hidden art.

To the end of securing the relation between concepts and intuitions on the level of the faculties, Kant develops the idea of a technics of nature (*Technik der Natur*), a Kantian neologism without precedent in the history of philosophy. The idea of technics of nature is to secure and explain how the understanding, with its universal laws, can find itself in nature in its actuality and not just in its possibility. But since, properly speaking, we can only judge nature technically in a reflective judgment, and thus with a hypothetical restriction, that which is properly speaking technical will in the end be shown to be our very own power of judgment. Paradoxically, then, the *Critique of the Power of Judgment* harbors the following predicament. On the one hand, Kant employs the terms technics in its substantive (*Technik der Natur*, *Technica speciosa*, *Technicism*) and adjectival (*technisch*) forms a near five hundred times throughout the *Critique of the Power of Judgment*, indicating that technics most certainly occupies a central and explicit place within the *Critique of the Power of Judgment*. On the other hand, and despite calling nature

⁶ J.G. Schlosser, *Plato’s Briefe nebst einer historischen Einleitung und Anmerkungen*. Footnote to p.182.

in its actuality technical hundreds of times throughout the print edition of the *Critique of the Power of Judgment*, for Kant it is ultimately not nature that is technical, but our own power of judgment. But while the unpublished first introduction to the *Critique of the Power of Judgment* identifies the power of judgment as the properly technical instance that allows us to judge nature technically, the final version of the book omits any reference to a technical power of judgment. And as if that was not enough, Kant twice further insists that the sphere of purposiveness that is not legislated by the categorical imperative should actually be called technical, seemingly forgetting that he had always already called it so. Thus, what is properly speaking not technical is called technical, while that which is properly speaking technical is not. And what has always already been called technical is insisted upon, again and again, as that which should properly be called technical.

Had Kant's philosophical and authorial task ended with the *Critique of the Power of Judgment*, one might be inclined to agree with Heidegger, Simondon, and Stiegler, even if for different reasons, that Kant's relation to technics was indeed uneasy, as it occupied what can only be understood as an important yet difficult role within the *Critique of the Power of Judgment*, oscillating in and out of sight, at once appearing from and then receding into the background. Kant, however, continued to write until shortly before his death in 1804. And it is precisely in his last piece of writing that Kant re-evaluates his preceding engagement with and understanding of technics. The *Opus Postumum*, I argue, contains Kant's mature systematic reflections regarding the place and role of technics, and specifically technical-practical reason, in the system of transcendental philosophy. The most important change in this regard is that, while the idea of a technics of nature was presented by Kant as a necessary regulative supplement for science and thus theoretical philosophy, the *Opus Postumum* will move to place the entire sphere of theoretical philosophy under the jurisdiction of technical-practical reason. Furthermore, technical-practical reason is systematically treated in the last two Fascicles of the *Opus Postumum*, and thus within and following from the context of Kant's renewed engagement with self-positing, that is, the two-fold act by which the subject makes itself into an object of experience. While the first act concerns the merely logical act of constituting oneself as an object of thought, I will show that that the second, subsequent act of self-positing, by which the subject posits itself as an object in time and space, is ultimately the responsibility of technical-practical reason.

Contra Heidegger, Simondon, and Stiegler, this dissertation thus proposes to articulate the longstanding and systematic engagement with technics at the heart of Kant's philosophical

project. Already the *Critique of Pure Reason* must be recognized as orienting itself against reason's technics of instrumentality, as it considers all philosophy prior to its own critical intervention as part of the history of instrumental reason. At the same time, however, and as the discussions of schematization and the discipline of reason will show, the *Critique of Pure Reason* already relied on a positive technics determined in opposition to reason's pathological instrumentality. This other technics will then be further developed, if only tentatively, in the *Critique of the Power of Judgment*, before fully stepping into the light in Kant's final, unfinished piece of writing, the *Opus Postumum*. What this trajectory from the three *Critiques* to the *Opus Postumum* shows is that Kant's transcendental philosophy has always already been *of* technics, at once explicitly constituted against and by it, a fact that Heidegger, Simondon, and Stiegler failed to recognize. In the following, then, a surprising image of Kant will step to the fore, as Kant will be shown to have engaged in several simultaneous technical discussions, the importance of which will finally find itself reflected, as sketched in the *Opus Postumum*, in the outline of the system of transcendental philosophy: a system which at once grants technical-practical reason a systematic place, while at the same time itself being a product of technical-practical reason.

CHAPTER 1. TECHNICS, PERIODIZATION, AND THE ECLIPSE OF KANT IN THE TECHNICAL THOUGHT OF HEIDEGGER, SIMONDON, AND STIEGLER

The twentieth century was witness to an upsurge of European philosophical thought on technics, addressing both the domains of skills and tools, instruments and machines, as well as technology, the scientific meta-discourse on technics. Among a whole array of perspectives, Martin Heidegger, Gilbert Simondon and Bernard Stiegler stand out as three of the most lucid and fruitful contributors. A closer look into their projects reveals that each, in their own way, had a multifaceted, yet uneasy, relation to Kantian philosophy. In one way or another, Heidegger, Simondon, and Stiegler each put forward a symptomatic reading of Kant, arguing that he articulated the problem of modern technics without self-reflexively understanding the nature of his own insight. Consequently Kant is given a prominent place in their projects while, at the same time, read as being incapable of recognizing the true nature of technics. The reason for this structural incapacity to think technics on Kant's part is said to be internal to the constitution of transcendental philosophy, leading each of these three thinkers to the conclusion, again and again, that when it comes to addressing the question and problem of technics, there is no future for Kant.

The aim of the following chapter is specific and limited. Before diving into Kant's own texts from Chapter 2 onwards in order to decide for ourselves how Kant thought or failed to think technics, the present chapter proposes three consecutive introductions of Martin Heidegger, Gilbert Simondon, and Bernard Stiegler's technical thought. Each of these accounts will be discussed according to three main points. Each thinker will first be discussed on their own according to their technical thinking, secondly via their reading of the history of philosophy, and finally through Kant's role within both their thinking and their projected history of technical thought.

CHAPTER 1.1 Heidegger and the question of technics

Martin Heidegger published his seminal essay *The Question Concerning Technics* (*Die Frage nach der Technik*) in 1954.⁷ Providing the German pole to the techno-optimistic parallel discourse emerging in France (involving the anthropologist André Leroi-Gourhan, Simondon, Jacques Derrida and others), Heidegger's elaborations appear to be more pessimistic in nature. Technics, he writes, "sets upon man, i.e., challenges him forth, to reveal the real, in the mode of ordering, as a standing reserve. Enframing means that way of revealing which holds sway in the essence of modern [technics] and which is itself nothing [technical]." ⁸ With these famous words, Heidegger articulated the threat posed by modern technics for *Dasein*. This threat is said to be the consequence of the curiously un-technical essence of technics, with Heidegger here indicating that this will not be a discourse on machines and tools: for Heidegger, if one remains within a so-called "technical" discourse on technics, primarily concerned with the concrete technical object, "we remain unfree and chained to [technics], whether we passionately affirm or deny it." ⁹ This, Heidegger claims, is due to the relata that are put into relation within the technical discourse on technics – on the one hand, the concrete technical object, and on the other, the human. In order to bring forth a free relation to technics, it is necessary to shift the discussion from the concrete technical object in its relation to the human to that of the essence of technics in its relation to *Dasein*.

While the nature of such a free relation remains yet to be determined, one can nonetheless already begin to qualify Heidegger's apparent techno-pessimism. It appears that Heidegger can neither be said to position himself "against" technics, not even in its modern guise, nor does he seem to want to "free" *Dasein* from technics. In his posthumously published notes on technics, entitled *Techné und Technik*, he holds that his "Denken ist nicht gegen >die

⁷ The essay *The Question Concerning Technics* is derived from material that Heidegger first presented at his 1949 Bremen lecture entitled *Das Gestell*. The title is usually translated as *The Question Concerning Technology*, but in order to uphold the conceptual distinction between the German terms *Technik* and *Technologie*, which was fully in place at the time of Heidegger's essay, I will henceforth translate the German *Technik* with the English neologism *technics*, which is also employed in English translations of Bernard Stiegler's and Gilbert Simondon's works.

⁸ Martin Heidegger, *The Question Concerning Technology*, p.20.

⁹ Martin Heidegger, *Die Frage nach der Technik*, p.4.

Technik< [...], sondern gegen die Oberflächlichkeit und Ahnungslosigkeit, mit der die Technik betrachtet wird.”¹⁰ In another set of notes, Heidegger further writes:

Die Technik ablehnen?

Ist um nichts weniger töricht als die Sonne ablehnen.

Was soll diese Ablehnung? – eine Selbsttäuschung!”¹¹

Heidegger’s position thus is not directed *against* technics, nor does it aim to free *Dasein* from technics. Instead, his relation to technics seems to be two-fold. On the one hand, by mentioning the sun and technics together, Heidegger considers technics to be a quasi-natural and therefore necessary element of our contemporary world that it would be foolish to try to reject. At the same time, however, and despite the fact that technics is everywhere and in everyone’s mouths and minds, it is subject to the general thoughtlessness that Heidegger diagnoses in the historical moment at large. Heidegger’s point, then, is that the right questions concerning technics have not been asked yet. “*Die Frage nach der Technik. Der Ton liegt auf der Frage. Sie zu entfalten ist vor allem nötig. Die Frage auszuhalten. Bedrängender als die Technik selbst ist die Frage nach ihr.*”¹² Thus, in as much as it would be a self-deception to try to reject technics itself, Heidegger’s position should also not be understood as rejecting the current discourses on technics *tout court*. Differentiating between the right and the true, in the sense that the right makes accurate observations without, however, revealing inner truth,¹³ Heidegger’s aim is to search in and through what is right in order to arrive at the true. Heidegger thus begins his inquiry into the inner truth of technics by working through two common approaches to technics, namely the instrumental approach and the anthropological approach. According to both approaches, technics is a means (an instrument) for the human to bring about an end, and thus an essentially anthropological characteristic. And indeed, who could doubt that the human employs technical tools as a means for its ends?

From *techne* to technics

¹⁰ Martin Heidegger, GA Band 76, *Vorstudien zum Technik-Vortrag*, p.347. “My thinking is not against technics [...] but against the superficiality and naivety with which we consider technics.”

¹¹ Heidegger, GA Band 76, *Wie läßt die Technik die Differenz (Ereignis) gewahr*, p.373: “To reject technics?

Is no less foolish than rejecting the sun.

What is this rejection? – A self-deception!”

¹² Heidegger, GA Band 76, *Vorstudien zum Technik-Vortrag*, p.358. “The question concerning technics. The tone lies on the question. It is necessary to develop it above all. To endure the question. The question is more pressing than technics itself.”

¹³ Heidegger, *Die Frage nach der Technik*, p.9.

Heidegger discusses the anthropological and instrumental discourses on technics in reference to Aristotle, who had famously determined the ancient Greek notion of *techne* in a twofold manner. On the one hand, Aristotle placed *techne* in relation to nature (*physis*), and thus within an ontological discussion of technical bringing forth (*poiesis*). On the other hand, *techne* was also discussed in contradistinction to the systematic and unchanging Greek notion of science (*episteme*), its epistemological counterpart. Heidegger's reading of the Aristotelian text proposes that what is at stake in both of these relations is in fact revealing (*entbergen, aletheia*), meaning that in both relations *techne* is a specific mode of revealing. Technical bringing forth (*poiesis*) reveals things which cannot come into appearance by themselves, in as much as any technical form of knowledge is nothing but a way of opening up, and thus a mode of revealing once again.¹⁴ Starting from the instrumental and anthropological definitions of technics as instrument and means for human ends, Heidegger thus arrives at revealing as the inner truth of *techne*. But can revealing be said to remain the key to understanding technics in its modern guise as well?

In the posthumously published collection of notes entitled *Techne und Technik*,¹⁵ Heidegger explicitly deals with the relation between the ancient *techne* and the modern *Technik*. Here, Heidegger writes that the machine (*die Kraftmaschine*) is precisely not the "Nachahmung der Handarbeit und des Naturvorganges."¹⁶ The machine, he writes, has a "motorischen Charakter der wesentlich auf Krafterzeugung bezogen ist,"¹⁷ meaning that it generates *Kraft* and thus energy rather than force, since it is thermodynamic in character. While the above section from *Techne und Technik* was already drafted around the year 1940, the same argument will be employed in the later *The Question Concerning Technics*. Modern technics is here primarily characterized as a demand directed at nature "to supply energy that can be extracted and stored as such."¹⁸ In its essential demand of generating and storing energy, modern technics is thus fundamentally distinguished from its pre-modern instantiation. At the same time, however, Heidegger claims that modern technics remains a mode of revealing (*entbergen*) nonetheless, retaining a direct relation to the ancient form of *techne*. But rather than revealing as a mode of bringing forth (*poiesis*) or technical knowledge, modern technics reveals as a mode of challenging (*herausfordern*).¹⁹

¹⁴ Ibid., p.13-14.

¹⁵ Heidegger, GA Band 76, *Techne und Technik*. The cover of the first Fascicle containing the manuscript is entitled *Technik 1940*. See p.401.

¹⁶ Ibid., p.309. "... imitation of handicraft and the natural process."

¹⁷ Ibid., p.308. "... motoric character which is essentially related to the generation of force."

¹⁸ Heidegger, *The Question Concerning Technics*, p.14.

¹⁹ Heidegger, *Die Frage nach der Technik*, p.15.

Heidegger's argument is as follows. Modern technics remains a mode of revealing because it challenges the real to reveal itself as something specific, which he calls standing reserve (*Bestand*). What this means is that through modern technics the real no longer comes into view as an object (*Gegenstand*), but as a standing reserve (*Bestand*). The modern world, he claims, can only come into view by being put in reserve, subjected to acts of "unlocking, transforming, storing, distributing and switching."²⁰ As a standing reserve the real no longer stands against us the same way that an object (*Gegenstand*) does, but instead has been "ordered to stand by, to be immediately at hand, indeed to stand there just so that it may be on call for a further ordering."²¹ Heidegger's point, then, is that thinking an airplane, for example, with the concept of object (*Gegenstand*) is certainly right. But it fails to be true, in the sense that one misrecognizes both what and how the airplane "is," in the sense of exists. The name standing reserve (*Bestand*) thus "designates nothing less than the way in which everything presences that is wrought upon by the challenging revealing."²² The mode of existence of that which has been challenged and revealed by modern technics is subsequently no longer objective, but a standing reserve (*Bestand*).

When it comes to the difference between ancient and modern technics, there is a second important difference that Heidegger points out. Complementing the relation between, or rather the move from, object (*Gegenstand*) to standing reserve (*Bestand*), Heidegger situates the conceptual relation between mind (*Gemüt*) and enframing (*Gestell*). The *Gemüt*, Heidegger writes, is "that original gathering from which unfold the ways in which we have feelings of one kind or another."²³ Enframing (*Gestell*) is equally said to have a gathering or assembling function. But rather than assembling our faculties in relation to a world of objects (*Gegenstände*), enframing (*Gestell*) challenges the human to reveal the real as a standing reserve (*Bestand*). According to Heidegger it is this call to enframing that is the curiously un-technical essence of modern technics: "Enframing means that way of revealing which holds sway in the essence of modern [technics] and which is itself nothing [technical]."²⁴ It is nothing technical because, in the way that the essence of a tree is not simply another tree and thus cannot be found in a forest, the essence of modern technics not just another technical object neither.²⁵ Enframing (*Gestell*), as the essence of

²⁰ Heidegger, *The Question Concerning Technics*, p.16.

²¹ Heidegger, *The Question Concerning Technology*, p.17.

²² *ibid.*, p.17.

²³ *ibid.*, p.19

²⁴ *ibid.*, p.20.

²⁵ Heidegger, *Die Frage nach der Technik*, p.7.

technics, thus cannot be found amongst technical objects, nor adequately addressed from within a technical discourse on technics.

The second term: the human

The preceding section has provided a first, initial discussion of Heidegger's thinking of technics. But in order to round off the preceding discussion, and before moving onto Heidegger's account of the history of technical thought, technics needs to be positioned in relation to the human. In claiming that enframing (*Gestell*) sets upon or challenges the human to reveal the real as a standing reserve (*Bestand*), the human as the second relata of the technical relation has been called into question. Heidegger's posthumously published collection of notes on technics includes the following remarkable passage on this point. "Das Wesen der Technik ist nichts Menschliches, aber die Technik gehört zum Menschen, weil der Mensch in das Wesen der Technik gehört. Je nach der Wesensgestalt der Technik [...] ist die Zugehörigkeit des Menschen in das Wesen verschieden und demgemäß die Art seines technischen Tuns anders."²⁶ While the essence of technics is here explicitly said to be neither technical nor human, the human is at the same time said to "belong" to the essence of technics in different, that is, changing, ways. Heidegger's point is that there is no immediate (un-mediated) relation between such a thing as "the human" and technics.²⁷ Depending on the specific (historical) form of the essence of technics, the human is called upon differently, and consequently partakes in the essence of technics in different ways.

This very point was already made by Ernst Jünger in his 1932 essay *The Worker* (*Der Arbeiter*), where he claimed that "man [*sic*] is bound up with [technics] not directly, but indirectly."²⁸ For Jünger, the relation between the human and modern technics is mediated by a metaphysical *Gestalt* (figure), which he named the worker. Technics is then the mode in which this *Gestalt* of the worker mobilizes the world.²⁹ Heidegger engaged with Jünger's writing throughout his life, and was particularly fond of *The Worker*. Band 90 of the *Heidegger Gesamtausgabe* contains the posthumously published collection of Heidegger's notes on Jünger, where we find an important passage from 1954, the same

²⁶ Heidegger, GA Band 76, *Vorstudien zum Technik-Vortrag*, p.339. "The essence of technics is nothing human, but technics belongs to the human because the human belongs to the essence of technics. Depending on the essential form [*Wesensgestalt*] of technics, the affiliation of the human to the essence of technics is different and, accordingly, the nature of his [*sic*] technical doing is different."

²⁷ Heidegger, GA Band 90, *Gestalt*, p.287.

²⁸ Ernst Jünger, 2017. *The Worker: Dominion and Form*. Translated into English by B. Costea and L. P. Hemming. Evanston: Northwestern University Press, p.97.

²⁹ Jünger, *Der Arbeiter*. p.77.

year that *The Question Concerning Technics* was published. Here, Jünger's claim about the mediated relation between the human and technics is explicitly discussed in contradistinction to a conference paper and essay written by the quantum physicist Werner Heisenberg, who claimed that "der Satz, daß der Mensch nur noch sich selbst gegenüberstehe, gilt aber im Zeitalter der Technik noch in einem viel weiteren Sinne."³⁰

In reference to Heisenberg, Heidegger asks "wer ist der Mensch – der sich da selbst begegnet?" A few lines further down he continues by asking "Der Mensch ob so etwas überhaupt möglich? Und wenn für möglich gehalten – ob nicht in dieser Meinung die größte Verblendung."³¹ *On the Question Concerning Technics* explicitly references the same sentence from Heisenberg, but Heidegger's own answer omits Jünger's name. Heidegger's claim is that when called upon by enframing (*Gestell*) to reveal the real as a standing reserve, the human is itself threatened with disappearing into the standing reserve (*Bestand*). And once faced with this threat, "man, precisely as the one so threatened, exalts himself to the posture of lord of the earth. In this way the impression comes to prevail that everything man encounters exists only insofar as it is his construct. This illusion gives rise in turn to one final delusion: It seems as though man everywhere and always encounters only himself."³²

Heidegger's point here is that it only seems as if modern technics has made the world into the mirror-image of "the human." But in fact, the human is called upon by enframing (*Gestell*) in a specific way, which Jünger called the *Gestalt* of the worker and which Heidegger can here be seen to call the *Gestalt* of the lord of this earth (*Gestalt des Herrn der Erde*). Being mediated in its relation to the world by such a *Gestalt* means that the human can no longer reflect itself anywhere in its inner being, meaning that it is essentially endangered by modern technics in its truthful relation both to itself as *Dasein* as well as to everything else that exists.³³ Everywhere we look, we find ourselves reflected back in the *Gestalt* of the worker as the lord of this earth. This is the case, Heidegger explains, because, while modern technics is indeed a mode of revealing, it at the same time covers or veils. It covers not only the past mode of revealing as bringing forth (*poiesis*), from which

³⁰ Werner Heisenberg, "Das Naturbild der heutigen Physik." In *Die Künste im technischen Zeitalter*. 1956, S.42. "The proposition that the human only faces itself is valid in a much broader sense in the age of technics."

³¹ Heidegger, GA Band 90. *Gestalt – notes to a letter to Ernst Jünger*, p.297. "who is this man – that meets himself," and a few lines later continuing "man, whether such a thing is possible at all? And if thought possible – if not in this opinion the greatest delusion."

³² Heidegger, *The Question Concerning Technology*, p.27.

³³ Heidegger, *Die Frage nach der Technik*, p.28.

it itself originated, but it furthermore covers revealing as such, “wherein unconcealment, i.e., truth, comes to pass.”³⁴ This predicament, which Heidegger also calls *Seinsvergessenheit* and, in its aggravated form, *Seinsverlassenheit*, is diagnosed by Heidegger as the central problem of metaphysics ever since ancient Greece.³⁵

Heidegger and the history of technical thought

Band 90 of the *Heidegger Gesamtausgabe* shows that Heidegger engaged with Ernst Jünger’s writing from as early as 1932, and continued to do so until the end of his life.³⁶ With both thinkers living through the far reaching technological change imparted on the world by the industrialized slaughter of the First and Second World Wars, including nuclear warfare, and the emergence of Fordism and the production line, Heidegger saw Jünger as someone who experienced these large-scale technological developments on the front line, and was able to articulate their inner truth. Heidegger argued that Jünger experienced his life as an active soldier during the abysmal First World War essentially through the fundamental insight that was first carved out by Nietzsche’s metaphysics.³⁷ Jünger, he writes, “faßt in der Wirklichkeit Fuß, die Nietzsche denkerisch erlitten hat.”³⁸

However Heidegger does not see in Jünger “only” a soldier who lived and suffered the material reality of what Nietzsche had anticipated in thought, but also someone who then, in a second step, was able to find “die Stärke und Entschiedenheit der Besinnung und des Wortes.”³⁹ As such for Heidegger Jünger is at once a highly decorated soldier during the *Materialschlacht* (battle of matériel) that was the First World War and a literary genius who was able to give word to the “geschichtlichen Grunde des Wesens des vollendeten Zeitalters der Neuzeit.”⁴⁰ Jünger’s writing, and in particular his essay *The Worker (Der Arbeiter)*, is thus read by Heidegger as the key to reflecting on the historical present in its

³⁴ Heidegger, *The Question Concerning Technology*, p.27.

³⁵ See Heidegger, GA Band 9. p. 339.

³⁶ Heidegger, GA, IV.: Hinweise und Aufzeichnungen, Band 90, Zu Ernst Jünger. Vittorio Klostermann. See Martin Heidegger, 1983. *Die Selbstbehauptung der deutschen Universität. Das Rektorat 1933/34*, p.24.

³⁷ Heidegger, GA, IV.: Hinweise und Aufzeichnungen, Band 90, Zu Ernst Jünger, p.217. Also see p.218: “Jünger hatte nicht das *Buch* mit dem Titel >>Nietzsche, Der Wille zur macht << im Tornister – sondern er wurde von Feuer und Blut, von Tod und der Arbeit, vom Schweigen und Donnern der Materialschlacht *als Erscheinungen des Willens zur Macht betroffen*.” “Jünger did not only carry the book *Nietzsche, The Will to Power* in his knapsack - but he was affected by the fire and blood, by death and work, by the silence and thunder of the battle of materiel *as appearances of the will to power*.”

³⁸ Heidegger, GA Band 90, p.214. “... gained a foothold in the reality that Nietzsche has suffered in thought.”

³⁹ Ibid., p.218. “... the strength and determination of reflection and word.”

⁴⁰ Heidegger, GA Band 90, p.37. “... the historical ground of the essence of the completed age of modernity.”

most inner truth. But how is one to understand Heidegger's claim that Jünger articulated the "completed epoch" of modernity when Jünger himself explicitly aimed to bring a new reality into view, which he believed to have just begun, and which he discussed under the name of the worker, total mobilization, and will to power (*Wille zur Macht*)?

Despite the explicit aim and content of Jünger's *The Worker*, which tries to articulate the beginning of a new kind of power (the worker), as well as an epoch (determined by work), which was to destroy bourgeois society, Heidegger claims that Jünger did not articulate the beginning of anything new, but that his contribution was rather the astute and lucid articulation of the completion of the modern epoch.⁴¹ For Heidegger, his time was not at all the beginning of anything new, least of all a new epoch. Instead, he understood his time to be the fulfillment of a process that had long been underway and that should now, finally, come to a close under the name of modern technics. Thus while for Jünger his time was the beginning of a new millennium and epoch, Heidegger believes Jünger, with his *The Worker*, to have articulated the conclusion and end of the modern epoch. According to Heidegger, Jünger thus greatly misinterpreted the temporal nature of his insight. There is then an important question that needs to be addressed. How does Heidegger characterize the modern period, and what role do both Jünger and modern technics play within it?

In the previous sections *The Question Concerning Technics* was seen to differentiate pre-modern *techne* from modern technics (*Technik*) by a two-fold move from object to standing reserve (*Bestand*) and from mind (*Gemüt*) to enframing (*Gestell*). We thus already know something about the specificity of Heidegger's conception of modern technics *vis à vis* its pre-modern instantiation. At no point, however, have we determined how exactly this transition from the pre-modern to the modern supposedly occurred. In order to engage with Heidegger's periodization claims, it is important to keep in mind that he differentiates between the chronologically right and the historically true.⁴² Thus, when considered chronologically, the emergence of modern technics post-dates the emergence of modern natural science, because modern technics is dependent on the exact natural sciences for its functioning.⁴³ Subsequently, modern technics is said to have emerged two centuries after the advent of modern science, with the invention of the modern machine (*Kraftmaschine*), and thus around the year 1750. This chronological history of how the emergence of

⁴¹ Ibid., p.37.

⁴² Heidegger, *Die Frage nach der Technik*, p.23.

⁴³ Ibid.

modern science is followed by modern technics is most certainly right. There is plenty of material evidence in the form of concrete technical objects to support it. But is it also true?

Heidegger's critique of the chronological periodization of the advent of modern technics hinges, once again, on the difference and overlap between the concrete technical object and the essence of technics. While the modern machine, meaning the concrete modern technical object, most certainly matters, it is necessary to keep in mind that it is the phenomenal manifestation of the essence of modern technics. And this very essence, Heidegger claims, already "holds sway" in physics. "Modern physics is the herald of Enframing, a herald whose origin is still unknown."⁴⁴ The essence of modern technics is thus, according to Heidegger, already "active," so to speak, in the modern exact sciences, which emerged during the seventeenth century, before coming into the open with the modern machine. What this means, then, is that what chronologically appears as later (that is, modern technics), in truth, when considered historically and in terms of its inner essence, predates modern science.

Because the essence of modern technology lies in Enframing, modern technology must employ exact physical science. Through its so doing, the deceptive illusion arises that modern technology is applied physical science. This illusion can maintain itself only so long as neither the essential origin of modern science nor indeed the essence of modern technology is adequately found out through questioning.⁴⁵

Heidegger thus claims that the essence of modern technics, *Gestell*, first emerged during the seventeenth century with modern physics, after which, two centuries later, the concrete technical object emerged, by way of modern natural science, in the form of the modern machine (*Kraftmaschine*).

In his posthumously published notes on technics, Heidegger further qualifies the relation between modern technics and modern science. They are both said to derive from the same metaphysical root (*dieselbe metaphysische Wurzel*).⁴⁶ Consequently, discussions concerning the priority or dependence of technics on science are futile and nonsensical, since they both derive from metaphysics.⁴⁷ At the same time, there is an asymmetry

⁴⁴ Heidegger, *The Question Concerning Technology*, p.22.

⁴⁵ Ibid., p.23

⁴⁶ Heidegger, GA Band 76: *Leitgedanken zur Entstehung der Metaphysik, der neuzeitlichen Wissenschaft und der modernen Technik*, p.299

⁴⁷ Ibid., p.310.

between metaphysics' two descendants, since modern technics does not only derive from metaphysics, but is furthermore "die eigentliche Vollendung der >Metaphysik<."⁴⁸ In its last stage, metaphysics is thus said to determine itself as technics.⁴⁹ Subsequently, and when considered from the historical rather than the chronological point of view, the question concerning technics turns out to be nothing but the question concerning metaphysics, as technics becomes that which must be asked about the "Wahrheit, in der das Seiende steht (dieses Stehen als Seynsgeschick *selbst*) und nach dem Seyn, das das Seiende in solche Wahrheit losgelassen hat."⁵⁰ What this means for our purpose here, then, is that our inquiry into Heidegger's account of the history of technical thought demands an inquiry into the history of metaphysics, as it is in its final stage that metaphysics "becomes" technics.

From metaphysics to technics

It is clear that working with a category as broad as the whole of metaphysics goes beyond the limits of the present discussion. Consequently the following discussion will employ a more restricted notion of metaphysics, namely that of modern metaphysics as philosophical modernity. In his notes on Jünger, Heidegger writes that philosophical modernity was "opened" with Machiavelli's 1532 *Il Principe*. The closing point, he goes on to argue, is marked by none other than Jünger's *The Worker*.⁵¹ In between Machiavelli and Jünger, or the prince and the worker, Heidegger then positions Descartes and Newton. Descartes is said to have performed the "Grundlegung des neuzeitlichen Menschentums"⁵² and modern thought in 1637 with his *Discourse on the Method*,⁵³ the essential feature (*Grundzug*) of which, according to Heidegger, is "the mathematical" (*mathemata*).⁵⁴ While the first effects of the mathematical are said to have arisen during the late scholasticism of the fifteenth century, and thus sufficiently earlier than the previously mentioned seventeenth century, Descartes's contributions in the seventeenth century allowed for the mathematical to be further clarified and determined, and Newton is credited with having subsequently produced the "first systematic and creative conclusion"⁵⁵ with his *Principia Mathematica* in 1686/87. The important question here, then, is of how to relate

⁴⁸ Ibid., p.294. "... the actual completion of metaphysics."

⁴⁹ Ibid., p.285.

⁵⁰ Ibid., p.296.

⁵¹ Heidegger, GA Band 90, p.80.

⁵² Ibid., p. 152. "... foundation of modern humanity."

⁵³ Ibid.

⁵⁴ Martin Heidegger, 1987. *Die Frage nach dem Ding*. Tübingen: Max Niemayer Verlag, p.74.

⁵⁵ Martin Heidegger, 2018. *The Question Concerning the Thing*. Translated into English by J. Reid and B. Crowe. London: Rowman & Littlefield, p.52.

Heidegger's characterization of the mathematical, as the characteristic feature of modern metaphysics, to what was discussed earlier on as enframing (*Gestell*).

Within Heidegger's corpus, the work best suited to addressing this question is without doubt the 1962 *The Question Concerning the Thing*, the reworked, published transcript of what was initially presented by Heidegger as a lecture course in the winter semester of 1935/36. It is thus situated at once before and after the 1954 *The Question Concerning Technics*, to which it stands in a quasi-complementary relation. *The Question Concerning the Thing* not only asks the metaphysical question *par excellence* – what is a thing? – but narrows this question: it asks what is, and how something can become, a thing for us now, in the modern period. And since, as discussed, the standing reserve (*Bestand*) is seen as the mode in which things “are” once they have been subjected to enframing as the essence of modern technics, the *Question Concerning the Thing* must be understood as narrating the history of metaphysics as the movement from the objective mode of existence to that of the standing reserve.

Heidegger begins his inquiry into the thing by pointing out that there is a historical dimension to thingness. What this means is that a thing is not just a thing naturally, but that there is a historical dimension to what can come into our view as a thing. The old metaphysical question of “what is a thing?” thus turns out to be a historical question, asking how something can become a thing for a specific time. The hypothesis put forward by Heidegger is, that when it comes to the modern age, the “thingness of things” is determined by the mathematical (*mathemata*), which is “that ‘in’ things [*jenes >>an<< den Dingen*] which we really already know; hence, what we do not first have to fetch from things, but what we bring along with us in a certain way.”⁵⁶ The mathematical is thus that which a priori allows things to come into view as things for us.⁵⁷

As suggested in advance by the reference to the a priori character of the mathematical, Heidegger goes on to introduce a new protagonist into the movement from metaphysics to modern technics, who has hitherto been absent from our discussion. Immanuel Kant, and specifically his 1780 *Critique of Pure Reason*, is subsequently introduced by Heidegger as performing a crucial role within the movement of modern metaphysics to technics. Heidegger claims that from its outset the *Critique of Pure Reason* already takes place in a world of mathematical-physical objects, never even questioning whether there could be

⁵⁶ Ibid., p.50.

⁵⁷ Heidegger, *Frage nach dem Ding*, p.71.

another access to the world than the one prescribed by Newtonian science. The *Critique of Pure Reason*, Heidegger thus claims, essentially lays open the a priori sketch of the thingness of things and the modern foundational attitude (*Grundstellung*) that comes with it, which to this day remains the “basic historical and spiritual stance [geschichtlich-geistige Grundstellung], which supports and determines us today.”⁵⁸

Heidegger and Kant

Heidegger charges Kant with numerous contributions to the movement of modern thought towards modern technics. Firstly, and most importantly, Kant is said to have formulated the “basic historical and spiritual stance, which supports and determines us today.”⁵⁹ This basic historical and spiritual stance (*Grundstellung*) is essentially modern and determined by the mathematical. The problem with a *Grundstellung*, however, is that it needs to be investigated and inquired into, in order to come out into the open and be understood.

In mastering or failing to master the question of the thing in a sufficiently thoughtful way, or in disregarding it altogether, there are decisions whose field of play and distance in our history are to be considered always only after centuries [have passed]. The confrontation with Kant’s step should provide us with the proper perspective [das rechte Augenmaß] for such decisions.⁶⁰

Secondly, then, Kant is not only said to have articulated the modern *Grundstellung*, he is furthermore said to provide the proper perspective (*Augenmaß*), and thus methodological instrument, to account for how the decisions taken within that modern *Grundstellung* have shaped and continue to shape the present. Kant is thus at once the subject and means of Heidegger’s inquiry into modern thinking.

Thirdly, Heidegger seems to propose an underlying relation between “the mathematical” discussed in *The Question Concerning the Thing* and what was earlier, in *The Question Concerning Technics*, called enframing (*Gestell*). The mathematical has so far been defined as the attempt to determine the being of beings, or the thingness of things, a priori, meaning from principles. From the point of view of the mathematical, “the givens of everyday getting around in the world [das umgänglich alltägliche gegebene] are construed

⁵⁸ Heidegger, *The Question Concerning the Thing*, p.38.

⁵⁹ Ibid.

⁶⁰ Ibid., p.90.

as mere material and splintered into a manifold of sensations,”⁶¹ which, once ordered and organized, can then come into view as an object of mathematical-physical science. In *The Question Concerning the Thing*, “material” thus means material for the a priori forms of the mathematical sketch of the thingness of things. From the perspective of *The Question Concerning Technics*, this consideration of something as sheer material is also precisely what Heidegger had in mind when he wrote that “man’s ordering attitude and behavior display themselves first in the rise of modern physics as an exact science.”⁶² Consequently, there is a direct relation between the material for the mathematical outline of cognition and the mode of existence of technically produced things as a standing reserve (*Bestand*), and thus as sheer material for enframing (*Gestell*). According to Heidegger, Kant’s *Critique of Pure Reason* reveals to us the ordering attitude (*bestellendes Verhalten*) of the mathematical sketch, which he also calls, in *The Question Concerning Technics*, enframing (*Gestell*).

There is, however, a further important point to Heidegger’s discussion of Kant. This last point concerns nothing less than the movement from metaphysics to modern technics itself. With the *Critique of Pure Reason* mapping onto the system of general and special metaphysics of the Wolff-Leibniz school, the chapter entitled *Transcendental Analytic* deals with what was hitherto discussed under the name of general metaphysics, and thus ontology: Kant’s self-professed aim with the *Transcendental Analytic* was to replace “the proud name of ontology [with] the more modest title of a transcendental analytic.”⁶³ At the same time, the *Transcendental Analytic*, and specifically the section entitled *Analytic of Principles*, is the very place in which Kant lays out the mathematical sketch of the thingness of things. When considered from the perspective of Heidegger’s reading of Kant performed in *The Question Concerning the Thing*, the Kantian move from metaphysics to the *Transcendental Analytic* is thus, in essence, the very moment in which modern thought self-reflexively did away, so to speak, with metaphysics. This moment as such shifted the discussion of metaphysics to the mathematical sketch of the thingness of things, which at heart is nothing but enframing (*Gestell*) and thus the essence of modern technics. Kant’s *Transcendental Analytic* is thus, in a sense, the moment in which metaphysics “became” technics. From the perspective of Heidegger’s account of the movement of modern metaphysics to technics, Kant’s *Transcendental Analytic* is thus fundamentally a *Transcendental Technics*.

⁶¹ Ibid., p.145.

⁶² Heidegger, *The Question Concerning Technology*, p.21.

⁶³ CPR A247/B304.

Looking back, it thus becomes clear that Heidegger reads the history of technical thought as a two-fold movement from the ancient Greek *techne* to modern technics. Modern technics is further discussed and problematized in relation to modern metaphysics. Within the movement of modern metaphysics to technics, Kant situates Machiavelli and Jünger, understood as the respective opening and closing figures of modern metaphysics. Within that movement Heidegger also assigns important places to Descartes, Newton, and finally Kant. Kant's role is explicitly discussed in *The Question Concerning the Thing*, which was considered in its complementary relation to *The Question Concerning Technics*, as both texts, in their own way, ask the metaphysical question par excellence: what is a thing? Kant was here shown to occupy a multifaceted role. Apart from providing insight into the modern historical and spiritual stance (*Grundstellung*), he was also discussed as offering the proper perspective (*Augenmaß*) for adequately understanding this modern stance. Thirdly, *The Question Concerning the Thing* laid out the ordering attitude of the human, which had first showed itself in the natural sciences. Here, the notion of "material" was discussed as the hinge between both the mathematical outline, which orders "material" according to its a priori forms, and enframing (*Gestell*), which challenges the real to reveal itself as a standing reserve and thus as "material" for further ordering and organization. Fourthly and most importantly, I argued that the Kantian move to do away with metaphysics in favor of the *Transcendental Analytic*, which laid open the a priori principles of the thingness of things, was considered by Heidegger as the very moment in which metaphysics, so to speak, "became" modern technics. Kant's *Transcendental Analytic*, according to Heidegger's reading, is thus in essence a *Transcendental Technics*.

I have shown, that paradoxically, Heidegger's reading of Kant both credits Kant with announcing the beginning of modern technics with his *Transcendental Analytic*, while at the same time occluding any direct references to Kant's own account of technics. This is the case because, while providing the foundation for Heidegger's own technics-thinking as enframing (*Gestell*), Heidegger did not consider Kant to be a thinker of technics himself. I have shown that for Heidegger, Kant 'suffered' from the *Gestell* (enframing) instead of thinking it, transforming Kant into a symptom, possibly *the* symptom, of modern technics. Kant thus occupied a central but contradictory role in Heidegger's account of technics, at once articulating modern technics while, at the same time, being credited with no insight into it.

However, Heidegger's symptomatic reading of Kant only makes sense under the assumption that Kant did not put forward any explicit writings on technics, or, if there were writings on technics, that Kant did not recognize their inherent technical nature. As the following chapters will show, Kant however already "thought" technics, despite Heidegger's refusal to acknowledge it. The most important text in this regard is Kant's very last, unfinished work. The *Opus Postumum* will be shown to consist of nothing less than what would have been Kant's critique of technical-practical reason, had he lived to complete it. That Heidegger himself had access to the *Opus Postumum*, and explicitly referred to it, makes no difference at this point.⁶⁴ What remains to be done, then, is to inquire into Kant's thinking on technics, which might just reveal, in the process of doing so, one thing or another about Heidegger's own technics-thinking and where it might have come from.

⁶⁴ References to the *Opus Postumum* appear in Heidegger's lecture course on Schelling and German Idealism (1941-1943), in Martin Heidegger, *GA IV. Abteilung: Hinweise und Aufzeichnungen*. Bd. 86, p.246; Heidegger, *Die Frage nach dem Ding* p.60; and elsewhere.

CHAPTER 2.2. Simondon and the problem of technics

Martin Heidegger was, however, not the only philosopher to put forward an inquiry into the essence of technics in the post-war period. Gilbert Simondon's *On the Mode of Existence of Technical Objects* (1958)⁶⁵ can be read as the French techno-optimistic counterpart to Martin Heidegger's intervention in *The Question concerning Technics*.⁶⁶ In contrast to Heidegger's explicitly non-technical engagement with the question of technics, the explicit assumption of Simondon's title already suggests that there is precisely such a thing as a technical mode of existence, which Simondon calls *réalité technique* (technical reality).

In order to fully appreciate the scale and depth of Simondon's intervention in and engagement with the Heideggerian proposition, an important translation issue needs to be taken into consideration. In the first 1939 French translation of Heidegger's *Qu'est-ce que la métaphysique?* (*Was ist Metaphysik?*), Henry Corbin translated Heidegger's *Dasein* as *réalité humaine*.⁶⁷ Following and at the same time diverting from the Heideggerian path, Simondon ventured to employ the term *réalité humaine* and furthermore to supplement it with his own invention: *réalité technique*. Cecile Malaspina and Jon Rogove, the translators of the 2017 Univocal English translation of *On the Mode of Existence of Technical Objects*, have chosen to translate the two terms directly, as "human reality" and "technical reality." However, rather than referring to reality as a philosophical category of quality, Simondon must be seen to fundamentally refer to human and technical being (*Dasein*). Employing the Heideggerian terminology and its specific French philosophical history, Simondon argues that technical objects have being (*Dasein*) – a properly technical mode of existence that he calls technical reality – which is further complemented by a properly technical essence (technicity). At this point it should be clear that we are indeed a long way from Heidegger's famous claim, in *The Question Concerning Technics*, that "the essence of [technics] is by no means anything technical".⁶⁸ Simondon proposes that there

⁶⁵ Gilbert Simondon, 2017. *On the Mode of Existence of Technical Objects*. Translated by C. Malaspina and J. Rogove. Minneapolis: Univocal.

⁶⁶ Simondon's two-fold doctorate remained the only published work during his lifetime. His minor thesis *On the Mode of Existence of Technical Objects* was published in its entirety in 1958, while at first only the first half of his major thesis *L'Individuation à la lumière des notions de forme et d'information* (*Individuation in light of notions of form and information*) was published in 1964. Following his death in 1989, the second part of his major thesis would finally follow. It was only in 2005 that the French publisher Jerome Millon would publish a complete edition of his main thesis, containing both parts. While a partial, unofficial English translation of *On the Mode of Existence of Technical Objects*, by Ninian Mellamphy, has been circulating since the late 1980s, it was not until 2017 that the first complete English translation was published by Univocal. The translation of Simondon's major thesis is still underway.

⁶⁷ Martin Heidegger, 1938. *Qu'est-ce que la métaphysique?*, Translated by H. Corbin, Paris: Gallimard.

⁶⁸ Heidegger, *The Question Concerning Technology*, p.20.

is, essentially, such a thing as technical being, and that technicity only provisionally and partly manifests itself in the material technical objects that we interact with in the world. “Objects appear at a certain moment, but technicity precedes them and goes beyond them; technical objects result from an objectivation of technicity.”⁶⁹ Technicity must thus be thought as a power or potentiality in the proper sense, “a depository of a capacity to evolve”.⁷⁰

Simondon’s accounts of technical reality and technical essence are not, however, the only fundamental disagreements that Simondon has with the Heideggerian discourse. The previous section on Heidegger’s technical thought showed that a discourse of questioning runs through Heidegger’s philosophy. Simondon’s discourse, on the other hand, centers not on questions but around the problem and the problematic. However, the problematic is here not primarily an epistemological trope formulated by a thinking subject, as Gilles Deleuze already pointed out in his 1966 review of Simondon’s *L’Individu et sa genèse physico-biologique* (Individuation and its Physical-Biological Genesis).⁷¹ Rather, the problem “acquires in Simondon’s thought tremendous importance in so far as the category is endowed with an objective sense.”⁷² Simondon thus extends the territory of the problem to include objective reality, as he understands the problem to be the main dynamism in both the becoming of the world as well as the main figure through which an understanding of this becoming of the world comes about. What this means, then, is that becoming, or genesis, is at heart the resolution of a problem. Becoming, Simondon writes in the Introduction to *L’Individu et sa genèse physico-biologique*, “is not a framework in which being exists, it is a dimension of being, a mode of resolution of an initial incompatibility that is rich in potentials.”⁷³

Consequently, Simondon also takes issue with the metaphysical discipline of ontology. But differently to Kant, who replaced “the proud name of ontology [with] the more modest title of a transcendental analytic,”⁷⁴ and differently to Heidegger, who derived his notion of *Gestell* from reading Kant’s *Transcendental Analytic* as he put forward his own *Existential Analytic*, Simondon took another route, as he replaced the metaphysical discipline of

⁶⁹ Simondon, *On the Mode of Existence of technical Objects*, p.176.

⁷⁰ Ibid., p.170.

⁷¹ Gilbert Simondon, 1964. *L’Individu et sa genèse physico-biologique*. Paris: Presses universitaires de France.

⁷² Gilles Deleuze, *Desert Islands and Other Texts 1953–1974*. Trans. Michael Taormina. New York: Semiotext(e), 2004, p.88.

⁷³ Gilbert Simondon, “The Position of the Problem of Ontogenesis.” In *Parrhesia* 2009/7, p.6.

⁷⁴ Kant CPR A247/B304.

ontology with that of ontogenesis, understood as an inquiry into ontogenetic problems and resolutions, that “by which being becomes, insofar as it is, as being.”⁷⁵ What, then, is the problem of technics as formulated by Simondon in *On the Mode of Existence of Technical Objects*, and how does technical being become?

The problem of technics and becoming in Simondon’s *On the Mode of Existence of Technical Objects*

Philosophy, Simondon claims, has historically approached the reality of being in two, mutually exclusive, ways. Firstly, there is the substantialist mode of approach, which holds that being is not subject to construction or creation, but is rather given to itself or founded on itself in its unity.⁷⁶ Secondly, there is the hylemorphic mode of approach. Hylemorphism (in ancient Greek *hyle* meaning matter and *morphe* form) is the ancient philosophical doctrine of how form, usually taken to be active, bestows its shape on passive matter. According to hylemorphism, being “is considered to be created by the coming together of form and matter.”⁷⁷ What both of these approaches share is that they “presuppose the existence of a principle of individuation that is anterior to the individuation itself, one that may be used to explain, produce, and conduct this individuation.”⁷⁸ What this means is that both philosophical doctrines take a given individual as their starting point in order to then work their way back to its condition of existence, whereby granting ontological privilege to the constituted individual. Simondon’s project aims to critique these two approaches as he instead ventures to understand the individual through individuation, rather than the other way around.⁷⁹

Within the more restricted context of Simondon’s technical thought, one encounters the same opposition and problematization of philosophical doctrines in the third and final chapter of *On the Mode of Existence of Technical Objects*. Here, the substantialist first pole is termed *Apriorism*, which is said to attempt to grasp technics by means of the idea, and proceeds according to the logical procedure of deduction. The primary representative of *Apriorism* mentioned by Simondon is Plato.⁸⁰ The hylemorphic approach supplies the corresponding pole of *Aposteriorism*, which employs concepts over ideas, and is generally said to be the complementary empiricist, conceptual and partly nominalist approach to

⁷⁵ Simondon, “The Position of the Problem of Ontogenesis,” p.5.

⁷⁶ Ibid., p.4.

⁷⁷ Ibid.

⁷⁸ Ibid.

⁷⁹ Ibid., p.5.

⁸⁰ Simondon, *On the Mode of Existence of Technical Objects*, p.242.

technics (and philosophy more broadly).⁸¹ Discussing these approaches, Simondon employs a temporal critique, arguing that metaphysical thought in both its instantiations is either too early (a priori) or too late (a posteriori), but never contemporary with the becoming of technics. The temporal problematization of these two philosophical approaches can already be found in *The Position of the Problem of Ontogenesis*, where he writes that “the search for the principle of individuation occurs either before individuation or after individuation, depending on whether the model of individuation is physical (for substantial atomism) or technological and vital (for the hylemorphic scheme).”⁸² Despite Simondon’s claim that metaphysics is structurally incapable of accounting for the mode of existence of technical objects, due to its being out of time with the becoming of technics, his argument at the same time suggests that hylemorphism is essentially based on a technical model of individuation. How is one to understand this argument, where metaphysics is at once incapable of thinking technics and yet technical at heart?

Simondon’s point concerning hylemorphism is that its supposedly universal and logical scheme is in fact nothing but “the transportation into philosophical thought of the technical operation reduced to work.”⁸³ The main critique of hylemorphism, then, is that it leaves the active center of the technical operation obscure, as it relies on the activity of human work to effectuate the link between the two terms of matter and form. But while, as in brickmaking, for instance, the worker surely prepares the clay in order for it to take on form, it is “the clay that takes form according to the mold, not the worker who gives it its form.”⁸⁴ Simondon’s point is thus that at the foundation of the hylemorphic scheme, and thus at the foundation of the *Aposteriorism* of operational knowledge, lies a specific but ultimately incomplete technical experience.⁸⁵ As he puts this elsewhere, “l’opération technique qui impose une forme à une matière passive et indéterminée [...] c’est essentiellement l’opération commandée par l’homme libre et exécutée par l’esclave; l’homme libre choisit de la matière, indéterminée parce qu’il suffit de la désigner génériquement par le nom de substance, sans la voir, sans la manipuler, sans l’apprêter.”⁸⁶

⁸¹ Ibid.

⁸² Simondon, “The Position of the Problem of Ontogenesis,” p.5.

⁸³ Simondon, *On the Mode of Existence of Technical Objects*, p.248.

⁸⁴ Ibid., p.249.

⁸⁵ Ibid., p.248.

⁸⁶ Simondon, *L’individuation à la lumière des notions de forme et d’information*. p.51. “The technical operation which imposes a form on a passive and undetermined matter [...] is essentially the operation commanded by the free man and executed by the slave; the free man chooses matter, undetermined because it suffices to designate it generally by the name substance, without seeing it, without handling it, without preparing it.”

Consequently, with hylemorphism, form can only be considered to be the active principle of individuation, as it is by both Aristotle in his *Physics* and Hegel's lord in the *Phenomenology of Spirit*, because "la véritable passivité de la matière est sa disponibilité abstraite derrière l'ordre donné que d'autres exécuteront."⁸⁷ It is this simplified and socio-politically overdetermined model of technical production that is ultimately the target of Simondon's critique. With hylemorphism, while attention is paid to the two terms of matter and form, or passivity and activity, what happens between them is left in the dark. Looking at the centre of the operation would reveal that it is in fact the clay that actively keeps the form embodied in the mould of the brick, rather than it being the worker transferring form onto passive matter in the name of the master.⁸⁸ While for Heidegger modern technics was the completion of metaphysics, it is now clear that for Simondon an incomplete technical experience, overdetermined by the socio-economic and political reality of the ancient Greek master-slave dynamic, has been at the heart of the so-called abstract logical categories of the hylemorphic metaphysician ever since antiquity.

Simondon's proposition, then, is to replace the inaccurate and incomplete techno-metaphysical schema of hylemorphism with a detailed account of technical operation proper. This move is both conceptual and historical in nature. Simondon argues that the metaphysical schema of the universalized master's perspective could only remain unquestioned for as long as it was a human worker, bondsman, or slave who took care of the veiled centre.⁸⁹ However, "man [*sic*] cannot leave the center of operation in the dark, when he no longer intervenes as tool bearer; it is the center that must effectively be produced by the technical object."⁹⁰ Simondon thus argues that the philosophical doctrine of hylemorphism is essentially subject to challenge from the material reality of the technical object, rather than from a socio-political or philosophical critique of the master-slave dynamic inherent in hylemorphism. While in artisanal, pre-modern times, it was indeed the human who was responsible for the mediation between form and matter, with the advent of the technical machine taking over the responsibility of mediation, the representation of the "way of functioning that coincides with technical operation, which accomplishes it"⁹¹ has necessarily been put into question.

⁸⁷ Ibid., p.51. "The true passivity of matter is its abstract availability, behind the orders given to others to carry out."

⁸⁸ Simondon, *On the Mode of Existence of Technical Objects*, p.225.

⁸⁹ Ibid., p.249.

⁹⁰ Ibid.

⁹¹ Ibid.

The underlying argument here is then, that, insight into technical operation proper could remain structurally unquestioned until the invention of post-artisanal technical objects. This is the case because the industrially produced technical object, the machine, took over the worker's role of mediating between form and matter, meaning that the veiled centre necessarily became subject to inquiry. There is thus, according to Simondon, a specific historical moment that brought about both the possibility and necessity of developing post-metaphysical, technical thought proper. This specific historical moment is the transition from the artisanal to the industrial mode of production, with its industrially produced technical objects and machines. Consequently, the conditions for technical knowledge proper and post-metaphysical thought are said to be the result of the industrially produced technical object.

This direct interference of the industrial technical object in the development of technical and philosophical thought is, however, only one side of Simondon's account of the history of technical thought. The underlying implication of *On the Mode of Existence of Technical Objects* is that to this day, and thus long after the invention of the industrial technical object, knowledge of technical objects remains "nonessential" in character.⁹² His argument is that while the material conditions for both "essential" technical knowledge and post-metaphysical philosophical thought have been in place since the Industrial Revolution, these conditions have yet to be actualized. Simondon's project articulated in *On the Mode of Existence of Technical Objects* is thus essentially two-fold in nature. Firstly, Simondon argues that culture "has constituted itself as a defense system against technics; yet this defense presents itself as a defense of man, and presumes that technical objects do not contain a human reality within them."⁹³ The exclusion of technics from culture proper is thus to blame for the non-actualization of technical knowledge proper, giving rise to prevalent tensions and conflict, anxiety, alienation, and resentment in the relations between technics and the human. Simondon's explicit aim, then, is to rediscover the so-called alienated human reality at the heart of the technical object, and to integrate it into culture in order to resolve present social conflicts and contradictions. Secondly, in sketching out the role that technical operation and the Industrial Revolution play for the development of technical thought and, in a second step, also philosophical thought, Simondon aims to at last introduce and actualize the dormant conceptual resources that have materially been available since the Industrial Revolution. In so doing he seeks to overcome the metaphysical limits to knowledge and to finally put forward a post-

⁹² Ibid., p.xiii.

⁹³ Ibid., p.15.

metaphysical philosophy – his very own philosophy of individuation – capable of doing justice to the mode of existence of technical objects.

Simondon's history of technical thought

Thinking back to the discussion of Heidegger, it thus becomes clear that, when it comes to the history of technical thought, Simondon tells a radically different story. While Heidegger understood modern metaphysics as the movement from the objective mode of existence to the standing reserve (*Bestand*), in the sense that metaphysics in its final stage becomes modern technics, Simondon instead understands technics as the beginning of metaphysics in its hylemorphic instantiation, in the sense that metaphysics is founded on an incomplete technical experience, where, since the very beginning of metaphysics in ancient Greece and onwards, technical experience is reduced to work. Furthermore, Heidegger understood Kant's *Transcendental Analytic* as the moment in which modern metaphysics becomes technics, while he understood the nature of his own time to be the final coming-to-end of metaphysics. Simondon, on the other hand, claims that it was in fact the industrially produced technical object, in the form of the machine itself, that brought about the conditions of possibility for post-metaphysical thought and technical knowledge proper. While both locate this moment of transition in the end of the eighteenth century, the challenge to the metaphysical conception of technics was posed, according to Simondon, by the material technical object itself. What both thinkers share is an agreement that the end of metaphysics is yet to be brought about, and an explicit aim to end it, either through the process of questioning (Heidegger) or problematization (Simondon).

As we saw, Heidegger positioned as guiding figures between Descartes and his own time the trio of Newton, Kant and Nietzsche, none of whom Simondon explicitly engages with at length. However, both Newton and Nietzsche fit into the Simondonian narrative without difficulty. Newton is, without doubt, the most famous representative of what Simondon calls the properly universal science of technical *Encyclopedism*, while Nietzsche's will to power is what Simondon terms "autocratic philosophy of technics".⁹⁴ The one thinker that is difficult to fit into the Simondonian narrative is Kant, who is explicitly mentioned only

⁹⁴ Ibid., p.141. "One could use the term 'autocratic philosophy of technics' for a philosophy that takes the technical ensemble as a place where machines are used in order to obtain power [*puissance*]. The machine is only a means; the end is the conquest of nature, the domestication of natural forces by means of a first act of enslavement: the machine is a slave whose purpose is to make other slaves. Such a dominating and enslaving inspiration can coincide with the quest for man's freedom. But it is difficult to free oneself by transferring slavery onto other beings, men, animals, or machines; to reign over a people of machines that enslave the entire world is still to reign, and every reign presupposes the acceptance of the schemas of enslavement."

once in *On the Mode of Existence of Technical Objects*, in reference to his moral and political philosophy.⁹⁵ But, as I will argue, Simondon's technical thought is explicitly aimed against Kant's Transcendental Philosophy, while it pursues, what is without doubt a quasi-Kantian project.

Simondon and Kant

In her widely read book *Gilbert Simondon and the Philosophy of the Transindividual*,⁹⁶ Muriel Combes claims that Simondon's philosophy of individuation is explicitly aimed against "theories of knowledge inspired by Kant."⁹⁷ While Kant famously set out to establish the a priori conditions of and thus the possibility and the limits of knowledge, Simondon argues that such a priori cognitions of conditions are impossible, as "we cannot, in the common understanding of the term, *know individuation*, we can only individuate, individuate ourselves, and individuate within ourselves."⁹⁸ Furthermore, Simondon's philosophy of individuation explicitly rejects the a priori distinction between the subject and object of knowledge that Kantianism operates with, as he instead situates his approach before the bifurcation of the real into subject and object. Furthermore, on Simondon's account Kant's thought would be seen as intrinsically hylemorphic, as it operates from the standpoint of the difference between a priori forms of cognition and the a posteriori matter of sensibility. Consequently, Transcendental Philosophy is either too early (a priori) or too late (a posteriori), but never contemporaneous with the becoming of technics. From the perspective of Simondon's project, technics is thus the one question that Kant is structurally incapable of answering to. His answer will either come too early or too late.

From a structural perspective, Simondon does indeed seem to orient himself strongly against Kantianism in all its forms. While there is a surprising absence of explicit references to Kant in Simondon's writings, it would also be difficult to overlook Simondon's proximities to the Kantian philosophical project. One of these instances can be found in Simondon's characterization of his project as calling "upon a mediate and higher mode of knowledge, reuniting concepts [the aposteriorism of hylemorphism] and ideas [the apriorism of substantialism] in its unity."⁹⁹ Simondon's reference to a higher "third" has a distinctly Kantian tone to it, with Kant's schematism chapter in the *Critique of Pure*

⁹⁵ Ibid., p.225.

⁹⁶ Muriel Combes, 2013. *Gilbert Simondon and the Philosophy of the Transindividual*. Translated by T. LaMarree. Cambridge, Massachusetts: MIT Press.

⁹⁷ Ibid., p.7.

⁹⁸ Simondon, "The Position of the Problem of Ontogenesis," p.13.

⁹⁹ Simondon, *On the Mode of Existence of Technical Objects*, p.242.

Reason itself looking for “a third thing [*ein Drittes*], which must stand in homogeneity with the category on the one hand and the appearance on the other,”¹⁰⁰ at once intellectual and sensible. Rather than a transcendental schema, however, Simondon’s “third” is specified as knowledge by way of intuition, supposedly capable of grasping in a way “that is neither a priori nor a posteriori, but contemporaneous with the existence of the being it grasps, and which is at the same level as this being.”¹⁰¹ Generalizing Henri Bergson’s method of intuition, Simondon thus argues that philosophy must position itself in the very gap separating the *Apriorism* of the idea and the *Aposteriorism* of the concept, intuiting the real by means of the convergence between these two strands of philosophical thought. However, the overall aim of Kant’s Transcendental Philosophy had itself always been to “bridge the gap” between Rationalism (*Apriorism*) and Empiricism (*Aposteriorism*), and the explicit aim of the third *Critique*, the *Critique of the Power of Judgment*, was to inquire into the power of judgment as the “mediating power” between nothing less than the faculty of understanding with its concepts and the faculty of reason with its ideas.

This, however, is not the only complicated overlap between the Kantian and the Simondonian project. Looking deeper into Simondon’s account of the history of technical thought, we can see that he employs a conceptual distinction that does not feature in either Heidegger’s or Stiegler’s work. The technical object, Simondon claims, can be related to the human in two fundamentally different ways, both of which continue to exist up to the present day, but which were dominant at different points in time. On the one hand, technics can be encountered and acquired non-reflectively by the human during childhood, giving rise to a relation of “minority,” and on the other hand reflectively learned during adulthood giving rise to a “majority” relation between the human and technics. What becomes clear, then, is that Simondon employs a distinction first made famous by Immanuel Kant in his 1784 Prize-essay “An Answer to the Question: ‘What is Enlightenment?’”¹⁰² Enlightenment (*Aufklärung*) was principally defined by Kant as the “human being’s emergence from his self-incurred minority,”¹⁰³ with minority referring to a difficulty or inability in judging without the help of others. While only exceptionally achieved by individual people, Kant’s argument ultimately aims to locate the self-emergence from minority in the public as a whole, and in its free use of reason by means of the instrument of criticism.¹⁰⁴

¹⁰⁰ Kant CPR A138/B177.

¹⁰¹ Simondon, *On the Mode of Existence of Technical Objects*, p.242.

¹⁰² Kant 8:35-42.

¹⁰³ Kant 8:35.

¹⁰⁴ Kant 8:36.

Aligned with influential critiques of Kant's Enlightenment discourse put forward by thinkers including Nietzsche, Adorno, and Habermas, Simondon at once employs Kant's Enlightenment discourse, and at the same time, attempts to turn it against itself, since what is at stake, according to Simondon, is not pure theoretical or practical reason, but technical reason. The minority relation between technics and the human laid open by Simondon determines the technical object as "firstly an object of utility, necessary for everyday life, belonging to the heart of the environment where the human individual's growth and training takes place. In this case the encounter between the technical object and man [*sic*] occurs essentially during childhood. Technical knowledge is implicit, non-reflective, and habitual."¹⁰⁵ Built by habit and thus functioning as a quasi second nature, the minority relation relies on having been taught during childhood, with the problem being that it is difficult if not impossible to self-reflexively change one's relationship to the technical object after childhood. The knowledge that is said to ensue from the minority relation is thus "operational rather than intellectual; it will be an ability rather than knowing; by its nature, it will be a secret for others, because it will be a secret for himself, for his [*sic*] own consciousness."¹⁰⁶ Essentially lying outside of conceptual and scientific discourse, there is as such no, or at least no direct, relation between science and technics possible from within the minority relation. The minority relation to technics is, according to Simondon, lived by miners, shepherds, farmers, artisanal technicians in general, and so on.

On the other hand, however, Simondon claims that there is also a "majority" relation to technics, and thus an 'enlightened' technics, which "corresponds to an operation of reflection and self-awareness by the free adult, who has at his [*sic*] disposal the means of rational knowledge, elaborated through the sciences: the knowledge of the apprentice is thus distinguished from that of the engineer."¹⁰⁷ Thus while technical minority is acquired during childhood, technical majority is the technical relation acquired by the human during adulthood, corresponding to the rational, scientific, and thus universal insight of a studied engineer:

It is rational because it employs measurement, calculation, procedures of geometrical figuration and descriptive analysis; [...] not only is scientific explanation required, but it is

¹⁰⁵ Simondon, *On the Mode of Existence of Technical Objects*, p.103.

¹⁰⁶ *Ibid.*, p.106.

¹⁰⁷ *Ibid.*, p.103.

required with a clear taste for the scientific spirit. Moreover, this way of teaching is doubly universal, both through the public it addresses and through the information it provides.¹⁰⁸

Simondon's example of the majority relation between technics and the human is Diderot and D'Alembert's *Encyclopedia*,¹⁰⁹ published between 1751 and 1772 in France. Containing prints of schemas and models so that its readers could both build as well as develop the depicted technical apparatus further by means of invention, the *Encyclopedia* is said to have freed technical knowledge from the protection of the guild¹¹⁰ and made it accessible to the wider public for the first time. At the same time, however, the *Encyclopedia* provides more than just the prime example of the majority relation to technics. Simondon's argument is that in fact the majority relation as a whole is itself the effect of what he calls encyclopedic spirit, or *Encyclopedism*.

Simondon argues that the first appearance of *Encyclopedism* takes place as early as in the Renaissance,¹¹¹ when technical machines were first introduced into the realm of rationality and science.¹¹² Ultimately held back by the immaturity of the sciences, Simondon reads the eighteenth century Enlightenment as the second stage of *Encyclopedism*, a technical *Encyclopedism* which properly "freed" technical thought for the first time.¹¹³ Diderot and D'Alembert's *Encyclopedia* was thus at heart a book moved by a technical spirit or force that was first freed by Enlightenment science.¹¹⁴ This technical force, Simondon writes, "existed by itself, because it responded to the needs of its time, more than political or financial reforms did,"¹¹⁵ realizing nothing less than a society of technical autodidacts who could think for themselves and bring forth technical objects by themselves. Simondon thus argues that it was technical *Encyclopedism* that brought about the essential opposition to the "tutelage and the status of spiritual minority," culminating in the moving forces that would finally overthrow the "moral and political heteronomy of the monarchy [*l'Ancien Régime*]."¹¹⁶ Understanding the second stage of *Encyclopedism* to have been a properly technical *Encyclopedism*, Simondon thus argues that it was ultimately "through

¹⁰⁸ Ibid., p.110.

¹⁰⁹ Ibid., p.109.

¹¹⁰ Ibid., p.110.

¹¹¹ Ibid., p.113.

¹¹² Ibid., p.113.

¹¹³ Ibid., p.113.

¹¹⁴ Ibid., p.110.

¹¹⁵ Ibid.

¹¹⁶ Ibid., p.111.

technics”¹¹⁷ that the eighteenth century managed to free itself from the social, moral and political constraints of *l’Ancien Regime*.

Simondon’s periodization of *Encyclopedism* reads the history of modernity through a technical lens, going as far as to argue that Enlightenment humanism was at heart a technical force of liberation. Secondly, however, it has become clear that the periodization of *Encyclopedism* so far centers on the process of a convergence between science and technics/technology. While the first introduction of technics into science is said to have taken place already during the Renaissance, it was only the enlightened stage of *Encyclopedism* that finally “freed,” in the sense of universalized, technics, making possible, for the first time, a majority relation to technics. This second, enlightened, and properly technical stage of *Encyclopedism* was itself, however, held back by “the hierarchical aspects of social rigidity.”¹¹⁸ What is needed in order to complete the convergence between science and technics, then, is a third type of *Encyclopedism*, a technological *Encyclopedism*.

The translators of *On the Mode of Existence of Technical Objects* inserted a note into the *Introduction* in order to highlight the difference between technics and technology. While technics (*la technique, les techniques*) refers to both “the practical and particular application of technics to a given concrete task” as well as “the theory or study of industry and of the mechanical arts,” technology, for Simondon, constitutes the philosophical meta-theory of technics.¹¹⁹ While Simondon explicitly discusses his notion of technology in only a few passages, the entire project of *On the Mode of Existence of Technical Objects* can be read as Simondon’s attempt to produce just such a philosophical meta-theory of technics. In fact, for Simondon the duty of such a philosophy of technology is “analogous to the one [philosophy] fulfilled for the abolition of slavery and the affirmation of the value of the human person.”¹²⁰ This means that, just like its two predecessors, technological *Encyclopedism* is at heart a humanism aimed at liberation.

Differently from the enlightened humanism of the eighteenth century, however, Simondon’s claim is that the twentieth century must seek “a humanism capable of compensation for the form of alienation that intervenes within the very development of

¹¹⁷ Ibid., p.120.

¹¹⁸ Ibid., p.117.

¹¹⁹ Ibid., p.15.

¹²⁰ Ibid.

technics, through a series of specializations that society demands and produces.”¹²¹ The specific form of alienation that technological *Encyclopedism* is tasked with liberating is thus, according to Simondon, explicitly technical. What is needed in our day and age is a humanism that recognizes and becomes aware of the mode of existence of technical objects, in order to free “human reality enclosed within the technical object.”¹²² Such a liberation cannot be achieved by a repetition of the universalizing efforts of the enlightened, technical *Encyclopedism*. And furthermore, it is no longer a problem of merely putting science and technics in relation to each other. If technological *Encyclopedism* is to tackle the issue of technical alienation, it first needs to introduce into culture “a representation and scale of values adequate to the essence of technical objects,”¹²³ in order to then, in a second step, develop a universal symbolism common to both the human and the machine. This is a two-fold effort that Simondon finds in Norbert Wiener’s *Cybernetics* (1948).

Within Simondon’s discussion of *Encyclopedism*, Kant resurfaces as Simondon’s silent interlocutor. Simondon’s account of the two possible relations to technics are undoubtedly colored by the terminology of Kant’s famous Enlightenment essay. From the conceptual distinction between technical minority and majority (*minorité* and *majorité*),¹²⁴ to the terms of tutelage and spiritual minority,¹²⁵ Simondon makes continual references to the Kantian terminology. However, while explicitly employing Kantian terminology, Simondon’s implicit critique is that Kant could not see, as he was structurally incapable of seeing, that the driving force of the Enlightenment was in fact technical. Kant’s problematic reaffirmation of the hylemorphic matter/form distinction that had dominated philosophy ever since ancient Greece means that, for Simondon, Kant, despite writing at the time of *technical Encyclopedism* and the advent of the industrially produced technical object, remained structurally incapable of thinking technics, even, or especially, in its instantiation as universal, technical reason. From Simondon’s point of view, I would like to argue that the *Critique of Pure Reason* should have been called the *Critique of Technical Reason*. The fact that it was not means that technicity remained unaccounted for and thus alienated within the efforts of Enlightenment humanism. It is this very occlusion that demands a technological *Encyclopedism* capable of finally attending to the mode of existence of technical objects.

¹²¹ Ibid., p.118.

¹²² Ibid., xiii.

¹²³ Ibid.

¹²⁴ Ibid., p.85.

¹²⁵ Ibid., p.111.

In the end, Simondon's critique of Kant thus remains remarkably close to the one put forward by Heidegger. On the one hand, Simondon reads the Enlightenment and the Industrial Revolution as two historical moments that brought about the conditions for both scientific technical thought proper and post-metaphysical thought. But, much like Heidegger, Simondon's claim is that these conditions remained unactualized, and that it will be his own contribution to technical thought, and to philosophy at large, through which the conditions for post-metaphysical technical thought proper, which had been dormant for the past 150 years, will finally be actualized.

CHAPTER 1.3. Stiegler and the repression of technics

If Heidegger argued that the right questions concerning technics have not yet been asked, and if Simondon claimed that metaphysics was out of time with technics in its problematic becoming, then Bernard Stiegler must be seen to push both their positions further, as he argues that the history of philosophy is nothing less than the history of the repression of technics. Stiegler stands as the most prominent living voice within contemporary French thought on technics. *Technics and Time, 1: The Fault of Epimetheus* (*La technique et le temps, 1: La faute d'Épiméthée*), forming the first part of his *Technics and Time* series, was published in 1994, in the wake of deconstruction and at the time of a French resurgence of interest in Simondon's work. The book opens with a familiar refrain, according to which technics "is the unthought."¹²⁶ Following Simondon and Heidegger, Stiegler thus prefaces his own philosophical intervention by articulating the underlying techno-phobic constitution of philosophy.

However, a new undertone can be detected in Stiegler's particular reiteration. The problem here does not seem to be one of living in a technological world devoid of the adequate conceptual tools for addressing it. It is not that philosophy is out of time with technics, or that it simply forgot about technics. Rather, Stiegler explicitly frames the relation between philosophy and technics as one of repression. "At its very origin and up until now, philosophy has repressed technics as an object of thought."¹²⁷ Philosophy, he thus claims, has repressed technics since its very beginning, meaning that technics "is not un-identified in the sense in which something forgotten is not thought: it is largely thought and felt to be unthinkable."¹²⁸ The way that justice is to be done in the face of this long history of repression is by inventing technical thought anew, which, according to Stiegler, is as much an invention as an exhumation.¹²⁹ Stiegler thus stages his own intervention into the history of technical thought as an act of liberation, in which technics is finally set free. As I will show, Kant will once again come to play an important role within Stiegler's liberation narrative. While explicitly performing a thorough critique of Transcendental Philosophy, Stiegler's engagement with Kant did not only effect a restructuration of the entire *Technics*

¹²⁶ Bernard Stiegler, 1998. *Technics and Time, 1. The Fault of Epimetheus*. Translated by R. Beardsworth and G. Collins. Stanford: Stanford University Press, p.ix.

¹²⁷ Ibid.

¹²⁸ Bernard Stiegler, 2011. *Technics and Time, 3. Cinematic Time and the Question of Malaise*. Translated by S. Barker, Stanford: Stanford University Press, p.176-177.

¹²⁹ Ibid., p.142: "I mean 'invention' in the archaic sense of 'exhumation' ('in-vention of the holy cross')."

and Time series, it also allowed Stiegler to overcome a “connective fault”¹³⁰ at the core of his project. As already undertaken in the preceding two sections, I propose to first read Stiegler on his own terms, before tracing out his account of the history of technical thought and the role in this history assigned, as well as denied, to Kant.

Introducing Stiegler’s framework of exhumation

Stiegler distances himself not only from the metaphysical reading of technics, as do Heidegger and Simondon, but furthers his criticism to include the biological classification of bodies first undertaken by Lamarck. This is because, from the perspective of the two-fold distinction into the organic and inorganic, “technical things” are left hanging somewhere in the middle, suspended as a quasi-monstrous hybrid.¹³¹ Offering an alternative route to the troubling positioning of technics performed by both metaphysics and the natural sciences, *The Fault of Epimetheus* proposes to undertake a cross-reading of, on one hand, French anthropology, and, on the other, ancient Greek mythology as kind of pre-history to philosophy. Following the French anthropologist André Leroi-Gourhan, who famously put forward the thesis of the “originary characterization of the anthropological by the technological,”¹³² Stiegler argues that technics is the originary prosthetic supplement of the human. What is specific to Stiegler’s claim here is that this supplement does not replace something that has gone astray and is now lacking. The argument is rather that the human is in “default of origin,”¹³³ in the sense of originally being without either quality and predestination. Stiegler develops this thesis of the default of origin via Jean-Pierre Vernant’s reading of Plato and Hesiod’s accounts of the ancient Greek myth of Prometheus and Epimetheus.

In the ancient myth, having been charged with the task of distributing qualities to all beings, Epimetheus forgot to give an attribute to the human. In order to make up for the initial fault of his brother, Prometheus engages in the cunning theft of fire from Hephaestus so as to provide the human with a prosthetic supplement after the fact, whereby doubling up on the initial fault of Epimetheus. The concept of prosthesis developed by Stiegler engages the human in a threefold relation. It firstly establishes a spatial relation, in the sense that the human is placed in front and outside of itself: “In order to make up for the

¹³⁰ Stiegler, *Technics and Time*, I, p.xii.

¹³¹ Ibid., p.2.

¹³² Ibid., p.25.

¹³³ Ibid., p.114.

fault of Epimetheus, Prometheus gives humans the present of putting themselves outside themselves.”¹³⁴ At the same time prosthesis also establishes a temporal relation in a double sense. The prosthetic both sets in advance – in the sense of what lies in the past – as well as giving the human the capacity of anticipation and foresight, and thus its relation to the future as its ultimate possibility.¹³⁵ In this temporal relation, Stiegler argues that technical prosthesis in fact functions as a special kind of memory, which he calls epiphylogenesis.¹³⁶ Epiphylogenesis designates the accumulation of individual experiences and traces inscribed and collected in technical artifacts, through which they can then be passed on through time. As such, the technical artifact functions as an external memory-support of a past that none of us have lived, but which we have inherited and are to adopt as “our” own: it is our “already there.” Performing a powerful critique of Heidegger’s notion of the “already there,”¹³⁷ Stiegler then argues that Heidegger has forgotten the originary prostheticity of the “already there” that is essentially constitutive of *Dasein*.¹³⁸ The implication of Stiegler’s point is indeed powerful, as it follows that in his *Existential Analytic* Heidegger, despite his own technical critique of Kant, has himself forgotten the technical prostheticity constitutive of *Dasein*.

Stiegler’s account of technics as a prosthetic external memory support in essence puts forward a quasi-transcendental account of technics. As both in front and outside of “us” while also being our “already there,” the technical prosthetic mediates our relation to the world in the sense of first giving us access to the world in the sense of a pro-position.¹³⁹ Technics, Stiegler writes, “is what is placed before us [*la technique est ce qui nous est proposé*] (in an originary knowledge, a *mathesis* that “pro-poses” us things).”¹⁴⁰ Stiegler can thus be seen to at once follow Heidegger’s reading of *mathesis* as enframing (*Gestell*) while at the same time pushing Heidegger’s thought outside of itself. For Stiegler, technics *is* transcendental *mathesis*, an “originary” knowledge that opens us onto the world. At the same time, however, the concept of epiphylogenesis essentially suspends the very distinction between the transcendental and the empirical. The prosthetic, always encountered in the empirical world and thus in a sense a posteriori, at the same time

¹³⁴ Ibid., p.193.

¹³⁵ Ibid., p.152.

¹³⁶ Ibid., p.140.

¹³⁷ Ibid., p.16.

¹³⁸ Ibid., p.244.

¹³⁹ Ibid., p.235.

¹⁴⁰ Ibid.

precedes “this consciousness in time as the possibility of its already-there,”¹⁴¹ revealing the a priority of the transcendental to be a strange after-effect of the prosthetic.

Firstly and straightforwardly, Stiegler thus argues that both the metaphysical opposition between *logos* and *techne* and the natural scientific qualification of technics in opposition to both the organic and the inorganic fail to be useful. What follows from this first aspect is immense, for if technics is elevated to the status of an originary knowledge and rearticulated as a quasi-transcendental, it becomes clear that “religion, speech, politics, invention – each is but the effect of the default of origin.”¹⁴² According to Stiegler, *logos* and *techne* are thus both modalities of the originary default of the human, in relation to which they engage in a com-position rather than an opposition. They are both, Stiegler writes, “the fruit of [humanity’s] incompleteness.”¹⁴³ Thus from this point on, techno-logy is hyphenated.

There is, however, a further point to be made regarding Stiegler’s argument on the composition between *logos* and *technics*, which concerns their respective statuses of autonomy and heteronomy, as assigned by metaphysics. Traditionally, the noetic thought of *logos* is said to be self-moving and autonomous, while technics, since Aristotle, is instead posited as moving heteronomously. This is due to the fact that, according to Aristotle, *techne* lacks *arkhe* as the principle of its own movement and rest. There is here a metaphysical denigration of the technical prosthetic, reducing it to a mere means devoid of its own proper dynamic. However, Leroi-Gourhan’s quasi-zoological investigation into the development of technical artifacts, and Simondon’s concept of concretization, allow Stiegler to powerfully contest this denigration. Technics, Stiegler instead claims, possesses a universal tendency driving its evolution from within, a point with which Stiegler contests the before mentioned Lamarckian natural-scientific distinction of beings into two classes. Once a universal technical tendency is at play, technical things can neither be said to be organic and thus self-organized, nor can they any longer pass as un-organized and inorganic matter. Instead, Stiegler claims that this tendency necessitates the introduction of a third kind of being, which, as it stands in a particular and originary relation to the human as “the pursuit of life by means other than life,”¹⁴⁴ he calls “organized inorganic matter.”¹⁴⁵

¹⁴¹ Stiegler, *Technics and Time*, 3, p.141.

¹⁴² Stiegler, *Technics and Time*, 1, p.193.

¹⁴³ Ibid., p.194.

¹⁴⁴ Ibid., p.17.

¹⁴⁵ Ibid., p.49.

Stiegler's account of the history of technical thought

Stiegler's discussion of the concept of technics is supported by way of the reinterpretation of two main historical moments. The first moment is that of the ancient Greeks, and specifically Plato and Aristotle, marked as the beginning of the history of occidental philosophy and thereby the beginning of the repression of technics. The Platonic and Aristotelian constellation between philosophy and technics is problematized by Stiegler's return to philosophy's pre-history: Greek mythology and paleoanthropology. The second moment is located closer in time to us today. Focusing on the emergence of industrial technics and specifically its articulation in Adorno and Horkheimer's *Dialectic of Enlightenment*, this second moment will push Stiegler to perform a surprising return to Kant.

Concerning the first moment, we have already passed through Stiegler's argument regarding philosophy's self-constitution, since ancient Greece, via the repression of technics. In this regard, Stiegler points out that "at the beginning of its history philosophy separates *tekhne* from *episteme*, a distinction that had not been made in Homeric times. The separation is determined by a political context, one in which the philosopher accuses the Sophist of instrumentalizing the *logos* as rhetoric and logography, that is, as both an instrument of power and a renunciation of knowledge."¹⁴⁶ In an attempt to cleanse itself from the danger of instrumentalization, philosophy thus pitches scientific knowledge against technical knowledge, and through this opposition technical knowledge will become disparaged for several centuries to come. According to Stiegler, at issue with the Platonic resolution to the problem of instrumentality is that it is based on a fundamental misinterpretation. If *logos* is indeed in danger of being instrumentalized, this is because the possibility of instrumentalization is inscribed in *logos* itself, rather than being an effect of a corruption by *technics*. The fundamental problem, then, is not the relation that *logos* does or does not have to instrumentality, nor is it instrumentality itself. Rather, Stiegler locates the fundamental problem in the misconception and consequent reduction of the instrument "to the rank of means,"¹⁴⁷ resulting in the subsequent attempt to distance oneself from the instrumental, together with the political intention to master it.

In comparison to this inventive and powerful problematization of Plato and the founding distinction between *techne* and *episteme*, the subsequent narrative of what follows

¹⁴⁶ Ibid., p.1.

¹⁴⁷ Ibid., p.206.

unfortunately has little to offer in terms of rigor and criticality. Stiegler goes on to loosely refer to the Middle Ages, the Reformation with the invention of the printing press, Descartes, who he charges with the inauguration of the discourse on technics as objectivity,¹⁴⁸ and Kant, until finally referencing Marx, who is said to have been the first to open the possibility of a “techno-logy that would constitute a *theory* of the evolution of technics.”¹⁴⁹ Stiegler’s claim is here supported by a phenomeno-materialist argument, according to which it was the invention of technical machines and the phenomenological experience of living amongst those machines that demanded the elaboration of a new thought of technics. “Since the Industrial Revolution, ‘technical becoming’ [...], has compounded its systematic dimensions, becoming visible to the naked eye in various ways and sensible to the bodies and minds devastated by an entire universe of hellish machines.”¹⁵⁰

Stiegler’s point is thus that, prior to the experience of the industrially produced technical system, the inventiveness, evolutionary logic, and systematic dimension characteristic of technics proper had not been thinkable. Suspending judgment for now on whether it was truly structurally impossible for anyone to think technics proper prior to the industrially technical object, it becomes clear that Stiegler essentially aligns himself with Simondon in his argument that it was the industrially produced technical object that challenged the metaphysical conception of technics. For both Simondon and Stiegler, the industrially produced technical object thus functions as something like the condition of possibility of modern technical thought. The revolution in technical thought, first announced by Marx, is here conceptualized by Stiegler as the after-effect of the phenomenological experience of living amongst these “hellish machines.”

Everything that lies prior to the coming about of the historical possibility of a technological science, as announced by Marx, is gathered by Stiegler into two periodizing categories. Firstly Stiegler refers to philosophical modernity, with Descartes and Kant as opening and closing figures,¹⁵¹ and secondly to the “old metaphysical doxa,”¹⁵² with Aristotle and Kant as the respective orienting figures. Thus in both cases Kant occupies a limit position.

¹⁴⁸ Stiegler, *Technics and Time*, 3, p.172.

¹⁴⁹ Stiegler, *Technics and Time*, 1, p.2.

¹⁵⁰ Stiegler, *Technics and Time*, 3, p.188.

¹⁵¹ *Ibid.*, p.197.

¹⁵² *Ibid.*, p.67.

Philosophical modernity

Stiegler's brief account of philosophical modernity begins with the seventeenth century and Descartes, who first posited the "I think" as the constituting subject that faces an object constituted by the subject, and which is, in a further step, to be mastered by the subject through the instrument of technics. But while this new consciousness of the "I think" had been in effect since the seventeenth century, Stiegler's claim is that it was only fully "authorized"¹⁵³ by the subsequent technoscientific modernity that set in with the nineteenth century, characterized by the thermodynamic and industrial revolutions.

Stiegler's claim about the relation between philosophical and technoscientific modernity is complex. Firstly, and in reference to the Enlightenment project of public education and discourse, his claim is that the "I think" and its complementary discourse of technical mastery over nature was "concretized and generalized during the nineteenth century at the heart of the first Industrial Revolution."¹⁵⁴ As such, his argument is one of historical continuity between the philosophical invention of modern consciousness and its large scale implementation two centuries later, giving rise to the technical consciousness that would essentially drive technoscientific modernity. Alongside the role played by public education, for Stiegler the full authorization of modern consciousness also stands in an important relation to the thermodynamic concepts of energy and metastability, thoroughly unsettling, and in fact reversing, the old metaphysical order, according to which stability was the rule and change the exception.¹⁵⁵ It was thus not until the scientific claim of a thoroughly unstable world, in which change is the norm, that the idea of an all-powerful subject, who ventures to transform nature, was brought full circle.

Stiegler's follows up his argument on the continuity between the philosophical invention of modern consciousness and its large scale implementation two centuries later by arguing that this very continuity would nevertheless lead to the eventual break with the modern subject position, and with it the accompanying understandings of science and technics that were in place from Descartes until Kant. This is because it was in fact the very experience of technoscientific modernity, of living in a technological world in which technics seems to have gone out of control and could thus no longer adequately be understood as the

¹⁵³ Ibid., p.197.

¹⁵⁴ Ibid., p.145.

¹⁵⁵ Ibid., p.92.

application of science, that would reveal – to the “naked eye”¹⁵⁶ – the problems with the modern understanding of technics. Consequently, what follows is a nihilist techno-pessimistic discourse, from Nietzsche’s will to power, to Husserl’s *Crisis of the European Sciences*, until Heidegger’s account of technics as *Gestell*, all of which broke with the historical link between technics and objectivity, as well as the modern understanding of science, put in place by philosophical modernity.¹⁵⁷

The “old metaphysical doxa”

The second periodizing category employed by Stiegler is that of the “old metaphysical doxa”¹⁵⁸ which, according to Stiegler, spans the entirety of the history of western philosophy that opens with Aristotle and closes with Kant. Stiegler here writes that “at least from Aristotle to Kant, technics [...] arises from neither the practical domain as such nor the theoretical domain, in which it is cancelled.”¹⁵⁹ He then goes on to insist that “no dynamic *proper* exists for Aristotle, any more than for any other metaphysician – nor thus for Kant: this is their common feature.”¹⁶⁰ What is shared by Aristotle and Kant is thus an understanding of technics in terms of a means/ends rationality devoid of the systematicity of science. Realizing that it would, however, be problematically anachronistic to reduce Kant to Aristotle *tout court* given their vastly different historical contexts, Stiegler points out that they are most certainly differentiated by the modern concept of science.¹⁶¹ While both Aristotle and Kant consider science to be “what announces and formalizes the real *as what cannot be otherwise*,”¹⁶² modern science sees in technics an “application of science,”¹⁶³ while, for Aristotle, technics was constituted in opposition to science. As Vernant points out in *Myth and Thought among the Greeks*, anything concerning itself with the process of becoming and change lacked the essential scientific criterion of *akribeia* (precision) necessary for the scientific *episteme*.¹⁶⁴

¹⁵⁶ Ibid., p.188.

¹⁵⁷ Ibid., p.172.

¹⁵⁸ Ibid., p.67.

¹⁵⁹ Ibid., p.67.

¹⁶⁰ Ibid., p.188.

¹⁶¹ A period beginning with Newton and closing with Kant and Lamarck.

¹⁶² Ibid., p.193.

¹⁶³ Ibid., p.189.

¹⁶⁴ Jean-Pierre Vernant, 2006. *Myth and Thought among the Greeks*. Translated by J. Lloyd and J Fort. New York: Zone Books, p.306. This is explained by Vernant to be the case because there was no precise way of measuring time.

In a problematic move on the part of Stiegler himself, his designation of the second periodization as the “old metaphysical doxa” must be seen as reducing practically all of the history of philosophy, from Aristotle to Kant, to a problem of conjecture. Doxological critique was historically employed by Plato in order to separate *logos* from its instrumentalization by the sophists. In a strange turn of events, Stiegler himself employs the metaphysical distinction between philosophy and sophism, or science and technics, that he otherwise aimed to displace. However, given the broad periodization of the “old metaphysical doxa,” its efficacy as an actual historiographical category is questionable in any case. It seems, nonetheless, to perform a powerful function within Stiegler’s narrative. On the one hand, it aligns Kant’s thinking with that of Aristotle, putting forward an overwhelmingly Aristotelian Kant (which he might have inherited from Heidegger). On the other hand, he also seems to suggest that this “old metaphysical doxa” came to a close after Kant, with Marx. His narrative of the end of metaphysics thus differentiates itself from those of both Simondon and Heidegger. According to Simondon, the industrial revolution surely produced the conditions of possibility for a non-metaphysical thinking of technics, but nonetheless no genuine technical insight is said to have come about, due to culture’s technophobic constitution. The actualization of this post-metaphysical thought on technics is consequently the subject of Simondon’s own philosophical contribution in *On the Mode of Existence of Technical Objects*. Concerning Heidegger, modern metaphysics was shown to have begun with Machiavelli until finally coming to a close with Jünger. Heidegger thus equally locates his own intervention at the very cusp of the completion of metaphysics, which is to be brought about, or at least prepared, by his discourse of questioning.

Stiegler and Kant

While the preceding pages have demonstrated that Kant occupies an important role within Stiegler’s categories of periodization, this is not the only role that Stiegler ascribes to Kant. While *Technics and Time, 1: The Fault of Epimetheus* mentions Kant only a few times, and primarily in pejorative terms,¹⁶⁵ *Technics and Time, 3: Cinematic Time and the Question of Malaise* shows just how important Kant is for Stiegler’s overall project. In the opening note to *Technics and Time, 3* Stiegler points out that after the completion of what was initially supposed to be the third and final volume of the *Technics and Time* series, he

¹⁶⁵ See Stiegler, *Technics and Time, 1*, p.98.

noticed a problem of connection, a “connective fault.”¹⁶⁶ This problem of connection could only be resolved through an in-depth engagement with the very “heart of modern philosophy”: Kant’s *Critique of Pure Reason*. It was Kant who finally brought into view “the focal point of the very idea that, despite many attempts had escaped [Stiegler].”¹⁶⁷ Following his reading of the *Critique of Pure Reason*, Stiegler decided, in the year 2000, to push back what was initially supposed to have been the third and last volume of the *Technics and Time* series to a fifth position, inserting new third and fourth volumes.

The new third volume occupies an interesting position in relation to the overall series. Essentially performing a reading of Kant, it is said to be both autonomous of the series while at the same time functioning as an introduction to the preceding two volumes.¹⁶⁸ This means that Stiegler’s engagement with Kant is important for two reasons. Firstly, it demanded nothing less than the restructuring and overall rethinking of the entire *Technics and Time* series, thus revealing Kant’s surprisingly central position within Stiegler’s project. Secondly, it is Stiegler’s reading of Kant that now explicitly prepares the ground for and serves as the introduction to the entire *Technics and Time* series.

Stiegler’s reading of Kant’s *Critique of Pure Reason* centers on four main points: synthesis, schematization, orientation, and finally critique. Of these four issues, it will be the question of synthesis “that will constitute the heart of the reflections [Stiegler] offer[s] here through a reading of Kant’s *Critique of Pure Reason*.”¹⁶⁹ In line with Stiegler’s argument, presented in the preceding pages, that the a priori is essentially the after-effect of prostheticity, Stiegler accuses Kant of not having seen how the a priori three-fold synthesis of consciousness was always already conditioned by a fourth synthesis. This fourth synthesis, he argues, is technological¹⁷⁰ and synthetic, in the sense in which “we call the artifice of prosthetic replication ‘synthetic.’”¹⁷¹

In a complex manner, Stiegler puts forward an exegesis of Kant in order to show how Kant himself always already relied on a number of technical “retentional instruments,”¹⁷² and that it is precisely due to these material, technical traces that Kant’s conscious activity first became accessible to both himself as well as his public. On Stiegler’s account, Kant

¹⁶⁶ Stiegler, *Technics and Time*, 3, p xii.

¹⁶⁷ Ibid.

¹⁶⁸ Ibid., p.xi.

¹⁶⁹ Ibid., p.1.

¹⁷⁰ Ibid., p.141.

¹⁷¹ Ibid.

¹⁷² Ibid., p.144.

overlooked the material conditions of the production of the unity of his own consciousness in his transcendental idealist insistence on the interiority of phenomena, which surrounded him in the form of manuscripts, notes, and different versions. Functioning as a prosthetic milieu, at once consciousness and its other,¹⁷³ according to Stiegler the unity of Kant's own thought could only become accessible to Kant through his books and technical traces, functioning as the understanding's "veritable crutch."¹⁷⁴ Stiegler's argument is thus that while Kant always relied on this fourth, technological synthesis, he remained incapable of seeing it, let alone conceptualizing it.

Stiegler's discussion of schematization in *Technics and Time, 3* sets off from Adorno and Horkheimer's critique of the culture industry in *Dialectic of Enlightenment*. Their critique of the culture industry, and specifically Hollywood cinema, hinges on the claim that its "prime service to the customer is to do his schematizing for him [*sic*]."¹⁷⁵ What they mean to say is that Hollywood cinema has finally deciphered and gained control over what, according to Kant, was a "hidden art in the depth of the human soul."¹⁷⁶ Stiegler's engagement with Adorno and Horkheimer's argument asks how it is possible to schematize for someone else. Essentially employing a Kantian methodology, inquiring into the conditions of possibility while at the same time arguing against Kant, Stiegler's claim is that it was Kant himself who did not acknowledge the primordial role that mnemotechnical retentions (technical objects) have always already played in the constitution of consciousness. This means that it is only because schematization was always already implicated in the play of mnemo-technical retentions that it can now be industrially performed by the culture industry.¹⁷⁷

Stiegler thus ventures to show how image and schema, material trace and concept are co-emergent and interrelated, the reality of which is said to have escaped both Kant as well as Adorno and Horkheimer. Neither of them recognized the technical "substratum"¹⁷⁸ of the "third" provided by the schema. According to Stiegler, the schema and its substratum are thus "two faces of the same reality,"¹⁷⁹ providing the two-fold after-effect of an onto-epistemological elaboration that takes place prior to the bifurcation into form and matter,

¹⁷³ Ibid., p.49.

¹⁷⁴ Ibid., p.48.

¹⁷⁵ Theodor W. Adorno and Max Horkheimer, 1989. *Dialectic of Enlightenment*. Translated by John Cumming. New York: Continuum, p.124.

¹⁷⁶ Kant CPR A141/B181.

¹⁷⁷ Stiegler, *Technics and Time, 3*, p.41.

¹⁷⁸ Ibid., p.42.

¹⁷⁹ Ibid., p.55.

the inner and outer, the mental and the material. What this means, then, for Stiegler, is there can only be such a thing as an industrial schematism “because the schematics are originarily, in their very structure industrializable: they are functions [...] of technics, technology, and, today, industry.”¹⁸⁰

Stiegler’s third and fourth points of engagement with Kant equally do not stop short of being thoroughly unsettling. In naming the *Critique of Pure Reason* “Critique,” without a grammatical proposition that would concede the possibility of there ever being other possible critiques of pure reason, Kant put forward the performative claim to have completed the project of reason’s critique once and for all. However, in his discussion of the current technoscientific paradigm, Stiegler joins in the choir of post-Kantian thinkers who challenge the Kantian position of having completed the project of reason’s critique once and for all. Stiegler’s point is that when it comes to technoscience, by which he means contemporary scientific practice, the relation between the real and the possible has essentially been reversed. This is the case because technoscience, rather than describing or accounting for an already existing reality, aims to “create a new reality.”¹⁸¹ As such, the Kantian founding distinction between theory and practice, including the restrictions put on theoretical reason, is unsettled and essentially invalidated. The questions at stake in Stiegler’s discussion of technoscience thus firstly point to the necessity of a new, post-Kantian critique informed by technics, which, secondly, asks about the conditions of possibility of judging the technological fictions produced by technoscientific practice as a problem of how to orient oneself in the “darkness of scientific possibles.”¹⁸²

Once again, Kant must be seen to occupy a central yet paradoxical role in Stiegler’s account of technics. On the one hand, Kant appeared as the closing figure of both the main categories of periodization employed in Stiegler’s history of technical thought: philosophical modernity and the old metaphysical doxa. At the same time, Kant was revealed as the catalyst for the complete restructuring of Stiegler’s entire *Technics and Time* series. Furthermore, Stiegler’s discussion of the *Critique of Pure Reason* serves as the introduction to the entire restructured series, pointing once more to the foundational role that Kant plays in Stiegler’s technics-thinking. Despite this, and in a similar fashion to both Heidegger and Simondon, Stiegler’s reading of Kant appears thoroughly one-sided.

¹⁸⁰ Ibid., p.41.

¹⁸¹ Ibid., p.191,

¹⁸² Ibid.

On the one hand, Stiegler explicitly claims that Kant forgot about technics in all of its aspects, while, however, always already relying on technical prosthetics. On the other hand, and in a similar vein to Heidegger and Simondon, Stiegler only explicitly quotes Kant on technics once in order to underscore his point, namely that Kant mistook the relation between science and technics as merely a problem of application.¹⁸³ However, given the near absence of consideration afforded to Kant's own explicit thinking on technics, it remains unclear what exactly Stiegler thought that technics could have meant for Kant himself. As with the preceding discussions on Heidegger and Simondon, Kant occupies what can only, once again, be said to be a paradoxical position. Kant is at once denied insight into technics, while at the same time preparing the ground for Stiegler's own intervention.

¹⁸³ Immanuel Kant, 1996. "On the Common Saying: That may be correct in theory, but is of no use in practice." In *Practical Philosophy*. Translated by M. Gregor. Cambridge: Cambridge University Press, p.277. "Now if an empirical engineer tried to disparage general mechanics, or an artilleryman the mathematical doctrine of ballistics, by saying that whereas the art of it is nicely thought out it is not valid in practice since, when it comes to the application, experience yields quite different results from theory, one would merely laugh at him (for, if the theory of friction were added to the first and the theory of the resistance of the air to the second, hence if only still more theory were added, these would accord very well with experience)."

CHAPTER 1.4. A future for Kant despite Heidegger, Simondon, and Stiegler

The preceding discussions have shown, that Heidegger, Simondon, and Stiegler all argue, in one way or another, that technics articulates the limits of philosophical thought understood as metaphysics. Technics is thus at once philosophy's fundamental obstacle and its possibility. If philosophy is to finally open itself up to technics, it will have to undergo a radical transformation, with specific programmes for this transformation to be found in Heidegger's, Simondon's and Stiegler's respective philosophical projects.

According to Heidegger, technics is the final stage of metaphysics, meaning that the historical present is in a moment of transition (*Übergang*). Our vocation (*Bestimmung*), he then writes, is to bear witness to this transition and to prepare a different time through the act of questioning. "Wenn wir es vermögen das Wesen der Technik sachgemäß zu erfragen, wandelt sich dabei das Fragen in das erörternde Sagen, wandelt sich das Denken. Wir bewegen uns nicht mehr im Vorstellen von Gegenständen [...]. Wir gelangen unterwegs – wohin? Solches Denken ist nicht mehr stellbar *im* Ge-stell und durch dieses [...]." ¹⁸⁴

According to Simondon, technics is both the beginning and the end of metaphysics. It is the beginning of metaphysics because metaphysics was always already derived from the incomplete technical experience of the ancient Greek master-slave relation. And it is at the same time the end of metaphysics because, in being derived from an incomplete, socio-politically overdetermined technical experience, metaphysics is said to be structurally incapable of properly thinking technics. Simondon's own project, employing the method of problematization, aims to bring about a post-metaphysical and genetic philosophical thought, capable of thinking technics in its becoming.

In the third and final discussion, Stiegler characterizes the relation between philosophy and technics as one of repression. Stiegler's own contribution, at once Heideggerian and Simondonian, attempts to liberate technics through exhuming and thereby inventing technical thought anew. Only this way, he claims, can "justice" finally be done to technics.

¹⁸⁴ Heidegger, GA Band 76. *Zur Entstehung der modernen Technik - Leitgedanken zur Entstehung der Metaphysik, der neuzeitlichen Wissenschaft und der modernen Technik*, p.339. "If we are able to inquire properly about the nature of technics, the question changes into the discussing saying, the thinking changes. We no longer move within the representation of objects [...]. We get on the way - where to? Such thinking is no longer placeable in and through enframing[...]."

In their respective discussions all three thinkers have been shown to dedicate an important place to Kant. Kant himself wrote at the brink of the Industrial Revolution, and thus just prior to the widespread occurrence of industrially produced technical objects and the corresponding modern conception of technics. According to Heidegger, Kant's *Transcendental Analytic* laid open the a priori principles of the thingness of things, articulating the very moment in which metaphysics “became,” so to speak, modern technics. By consequence, I have argued that, according to Heidegger, the *Transcendental Analytic*, could or even should have been called *Transcendental Technics*. While providing the foundations for Heidegger's own notion of enframing (*Gestell*), Kant is however not read by Heidegger as a thinker of technics himself. Instead, he is read merely symptomatically, in the sense that he is said to have implicitly articulated the moment in which metaphysics became technics, without, however, self-reflexively “understanding” it himself.

Simondon places Kant in an equally prominent position in his critique of metaphysics, which, says Simondon, must be left behind once and for all. Simondon claims this is necessary as, from within the transcendental restrictions of knowledge so forcefully articulated by Kant, thought is either too early (a priori) or too late (a posteriori), but never contemporaneous with technical operation. According to Simondon, technics is thus the final question for transcendental philosophy, which it is structurally incapable of responding to: its answer will either come too early or too late. Due to essentially being out of time with technics, Kant could not recognize the inherently technical nature driving the Enlightenment, which Simondon also terms technical *Encyclopedism*. Since Kant argues that criticism is the basis of the Enlightenment, one could argue that, from Simondon's point of view, the *Critique of Pure Reason* should have been called *Critique of Technical Reason*. Since it was not, meaning that Kant remained blind to technicity and technical becoming, Simondon's self-proclaimed aim is to put forward a subsequent technological *Encyclopedism*, which is at heart also a humanism aimed at liberation, only this time, the liberation of technics.

Within Stiegler's project, Kant was shown to have led to the restructuration of the entire *Technics and Time* series. But similarly to Heidegger and Simondon, Stiegler also argues that Kant did not “think” technics in its constitutive, prosthetic function, as shown, for instance, in his critical discussions of synthesis and schematization. In his engagement with the concept of technoscience, Stiegler takes further issue with the Kantian foundational distinction between theory and praxis, which, in a similar argument to

Simondon, is said to be “structurally incapable” of thinking techno-science¹⁸⁵ Consequently, and despite its catalyzing function within Stiegler’s project, Stiegler also argues that Kant must ultimately be left behind as he marks a fundamental limit to technical thought proper.

Kant is thus given a prominent place in all three accounts of technics. Yet these discussions lead again and again to the conclusion that, when it comes to the question and problem of technics, there is no future for Kant. All three thinkers claim to be in a historically singular position from which technical thought proper can, for the first time, be developed, questioned, problematized, exhumed, and invented. Here, I claim that the open contradiction of the role occupied by Kant in twentieth century discourses on technics is itself a symptom of an underlying methodological problem, in the sense that, for the projects of these three self-proclaimed thinkers of technics to work, the history of philosophy had to be at once devoid of technical thought proper, while, at the same time, harboring the seeds for post-metaphysical thought on technics. Consequently, and as I will show in what follows, all three thinkers could themselves not see what it is they were at the same time so urgently looking for. Only in this way can the radical oversight regarding Kant’s explicit writings on technics make sense.

What remained veiled, or, in a quasi-tragic turn of events, was veiled once again by Heidegger, Simondon, and Stiegler, stands out in ever greater contrast to contemporary readers. In a strange turn of events, it is thus Heidegger, Simondon, and Stiegler, who can teach us to read the history of philosophy, including Kant, technically, despite their own explicit claims that the history of philosophy remained blind to the problem of technics. While the stand-alone engagement with Heidegger, Simondon, and Stiegler’s projects has herewith come to an end, in as much as the following chapters provide an in-depth inquiry into the role and meaning of technics within Kant’s system, they are also offering, at the same time, an engagement with, and critique of, the histories of technical thought told by Heidegger, Simondon, and Stiegler.

¹⁸⁵ Stiegler, *Technics and Time*, 3, p.180.

CHAPTER 2. KANT'S CRITICAL PHILOSOPHY AND TECHNICS

Any serious and fair engagement with a philosophical work must start out by articulating the problem that at once motivated the philosophical undertaking at hand and shaped the ensuing solution. When it comes to Kant, this means articulating the problem that motivated Kant to develop the critical method in order to find and justify his transcendental conditions of possibility. The point of departure is thus decided. But, one might well ask, does embarking from such a general place not risk losing the primary vantage point that motivated my inquiry in the first place? Is technics here relegated to the background before ever even seeing the light of day? As this chapter will show, it is here – at the general level of the problem addressed by Kant's philosophical project – that technics will show itself, in its complex and multifaceted form, for the first time. The investigation of the problem addressed by Kant's philosophical project thus constitutes the first part of the my inquiry into the role and meaning of technics in Kant's works.

Kant discusses his critical approach in the two prefaces and introductions to his seminal work, *Critique of Pure Reason* (*Kritik der reinen Vernunft*). The double genitive in the title of the work points to the complexity of the undertaking. The uncertainty of the who and the what in the grammatical structure reveals that this is not only a critique *of* pure reason, in the sense of subjecting pure reason to critique. It is at the same time pure reason itself that carries out this critique. We are thus dealing with what could be called a self-critique, in which an internally differentiated reason is at once the court of justice, the judge, and the accused themselves. But what has occasioned these extraordinary measures? What crimes has reason committed to provoke its own trial? Reason's self-critique, Kant claims, is necessary in order to settle once and for all the "endless controversies" fought out in "the battlefield [...] called metaphysics,"¹⁸⁶ which are slowly driving the former "queen of all

¹⁸⁶ CPR Aviii.

the sciences”¹⁸⁷ into ruin. Brought about by reason’s very own “fate [*Schicksal*],” reason is said to be “burdened with questions which it cannot dismiss, since they are given to it as problems by the nature of reason itself, but which it also cannot answer, since they transcend every [faculty] of human reason.”¹⁸⁸ The questions referred to by Kant are of a metaphysical order, questions such as: does God exist? What is the nature of being? When did the world begin?

While these questions are given to reason’s inner nature by itself, they simultaneously far exceed what reason is capable of answering. The predicament is thus indeed paradoxical, since reason has no one but itself to blame for its vexing dilemma. The source of the problem, Kant reveals, is to be found in reason’s nature itself. Subject to a “drive for expansion [*Trieb zur Erweiterung*],”¹⁸⁹ reason plunges itself into ever further “obscurity and contradictions,”¹⁹⁰ warranting the extraordinary measures of the *Critique of Pure Reason*. It is in relation to reason’s very own inner drive for expansion that technics will show itself, since, as I will show in the following, that reason’s very method of expansion is instrumental in nature.

In order to investigate reason’s predicament in more detail, I propose the following course of inquiry. The first part of this chapter will look in more detail at reason’s drive (*Trieb*). The second part will then discuss the instrumental problematic of the drive, before the third part will finally move from Kant’s pathological diagnosis of reason to his two-fold critical remedy, which will however itself rely, in the last instance, on a positive notion of technics.

¹⁸⁷ CPR Aviii.

¹⁸⁸ CPR Avii. Guyer and Woods here translate *Vermögen* as capacity, but for terminological precision I propose translating it as faculty.

¹⁸⁹ CPR A5/B8.

¹⁹⁰ CPR Aviii.

CHAPTER 2.1 Reason's drive

Emerging in the German language during the thirteenth century, *Trieb* initially denoted a non-human driving force (*Kraft*) in the broad sense of the term, and could be applied to both technically produced objects as well as organic but non-human beings. From the sixteenth century onwards the term came to refer to human beings as well, designating an internal impulse acting on the body or the mind.¹⁹¹ The 1984 edition of Grimm's *Deutsches Wörterbuch* states that a drive is, generally speaking, an "internal force that impels, that puts into motion [*innere treibende Kraft*]."¹⁹² Within the context of the *Critique of Pure Reason*, the term drive (*Trieb*) appears in relation either to expansion or to the *Triebfeder* (incentive) of morality,¹⁹³ which the later *Critique of Pure Practical Reason* will deal with explicitly.¹⁹⁴ That Kant's understanding of *Trieb* was generally in line with the definition given by Grimm's *Wörterbuch* is attested to by the various references to how reason is driven by its "own needs" (*durch ihr eigenes Bedürfnis*),¹⁹⁵ that it has its drive "in itself",¹⁹⁶ and, finally, that it is driven by "its own nature [*die Vernunft wird durch einen Hang ihrer Natur getrieben*]."¹⁹⁷ All of these citations point to reason's drive not being a problem of an external inclination, nor to the drive being a mere predicate of reason. Rather, it is reason's inner nature to strive. Autonomously arising from "within universal human reason itself [*aus der Natur der allgemeinen Menschenvernunft*],"¹⁹⁸ drive thus denotes the originary and continuous moving force that is reason itself.

While the drive is said to be innate to universal reason itself, the term "drive for expansion [*Trieb zur Erweiterung*]"¹⁹⁹ points to its general outward orientation. What this means is that reason strives towards "ends" or questions. And while these ends arise from "within

¹⁹¹ See Paul Katsafanas, 2018. "The Emergence of the Drive Concept and the Collapse of the Animal/Human Divide." In *Oxford Philosophical Concepts: Animals*, edited by P. Adamson and G. Fay Edwards. Oxford: Oxford University Press, p.239.

¹⁹² Citation and translation into English from *Dictionary of Untranslatables*. Entry on *Drive* written by Alexandre Abensour. Edited by Barbara Cassin. Translated into English by S. Rendall, C. Hubert, J. Mehlman, N. Stein, M. Syrotinski. Princeton: Princeton University Press. p.231

¹⁹³ CPR A15/B29.

¹⁹⁴ It will, however, only be granted explicit treatment in a discussion of Johann Friedrich Blumenbach's *Bildungstrieb* (formative drive) in the third *Critique*, *Critique of the Power of Judgment*, ten years after the publication of the A-Edition of the *Critique of Pure Reason*, where reason's drive already features. Consequently, I will not take recourse to Kant's adoption and reformulation of the *Bildungstrieb* for the discussion of drive in the *Critique of Pure Reason*.

¹⁹⁵ CPR B21-22.

¹⁹⁶ CPR A710/B738.

¹⁹⁷ CPR A797/B825.

¹⁹⁸ CPR B22.

¹⁹⁹ CPR A5/B8.

universal human reason itself [*aus der Natur der allgemeinen Menschenvernunft*],”²⁰⁰ their answer is said to “transcend every [faculty] of human reason.”²⁰¹ What this means, then, is that when it comes to theoretical reason as the primary object of the *Critique of Pure Reason*, it is not within theoretical reason’s power to answer, in the sense of know, its own questions. This is the case because the knowledge of these answers are said to lie “outside” of theoretical reason’s proper bounds. This applies in a two-fold manner: reason’s expansions are either aimed towards places far removed from empirical experience, so as to gain access to metaphysical questions, or, on the other hand, to its supposed real world referents. Both of these ends go right to the heart of the problem of the *Critique of Pure Reason*, which as a whole sets out to decide “about the possibility or impossibility of a metaphysics in general.”²⁰² Metaphysics poses questions that by definition cannot be answered by resort to experience, questions such as the nature of being (*metaphysica generalis*) as well as the existence and properties of God, the immortality of the soul, and the beginning and end of the universe (the three domains of *metaphysica specialis*).²⁰³ The problem articulated by Kant here is thus the following: despite the long history of metaphysics no stable ground has been gained so far. Falling into obscurities and entangling itself in contradictions, metaphysics failed to establish itself as a science over and over again, thereby continually forcing itself to retrace its steps.²⁰⁴ How, then, does reason go about achieving these ends? What is this problematic, unsound mode of expansion that Kant is talking about, by which reason is trying to answer its own questions which at once exceed its capabilities and proper bounds?

The *organon* of reason

Kant accuses reason of employing an *instrument* or *tool* in order to achieve its expansions, for which he uses the German word *Werkzeug* (instrument), which is otherwise employed in contexts of handicraft and technical production.²⁰⁵ Placing reason within a framework of instrumentality reveals that there is an underlying instrumental condition to reason’s drive. Reason’s drive is purposive (*zweckmäßig*); consequently it uses means (instruments) in order to achieve its ends (the questions of general and special metaphysics). But what is the ominous instrument that reason is accused of employing?

²⁰⁰ CPR B22.

²⁰¹ CPR Avii. Here again I propose translating *Vermögen* as faculty.

²⁰² CPR Axii.

²⁰³ CPR B7. These, then, are the questions of ontology, psychology, theology, and cosmology.

²⁰⁴ CPR Aviii.

²⁰⁵ CPR A61/B86.

The most famous *organon* (ancient Greek for instrument or tool) in the history of philosophy is without doubt the collection of Aristotle's six logical works.²⁰⁶ The name *Organon* was posthumously assigned to these works by Aristotle's followers. The first critique of Aristotle for using judgments, inferences and concepts as tools in order to extend knowledge came from Epicurus, who replaced the *Organon* with his more humble *Canon* (ancient Greek for rule), which "concerns criteria and first principles, or the fundamentals of philosophy."²⁰⁷ Epicurus's *Canon* thus aimed to establish a body of rules for distinguishing between correct and incorrect judgments, rather than extending knowledge.²⁰⁸ In his *Jaesche Logik* Kant refers to Epicurus's *Canon* and characterizes his own project as essentially Epicurean in nature. Logic, Kant writes, should be nothing but a "*canonica Epicuri*,"²⁰⁹ comprised of the correct rules for "*passing judgments and correcting our cognition, but not for expanding it*."²¹⁰ The *Critique of Pure Reason* equally proposes to restrict logic from organon to canon, whereby logic is reduced to a mere negative utility, "namely that it does not serve for [expansion], as an organon, but rather, as a discipline, serves for the determination of boundaries, and instead of discovering truth it has only the silent merit of guarding against errors."²¹¹ In Epicurean fashion, Kant thus accuses reason of (ab)using logic as an instrument for achieving its ends of expansion.

Kant's discussion of reason's drive for expansion takes place at two prominent moments of the *Critique of Pure Reason*: first appearing during the two *Prefaces* and *Introductions*, it reappears towards the end of the *Critique of Pure Reason*, in the second of its two books. In between the *Introductions* and the second book we find the disproportionately long *Transcendental Doctrine of Elements*, which contains the promised canon: "a science of the mere estimation [*Beurteilung*] of pure reason, of its sources and boundaries."²¹² After reason's elements, "sources and boundaries" have been secured by the canon, Kant moves on to the second book of the *Critique of Pure Reason*, entitled *Transcendental Doctrine of Method*. The nomenclature of the two main books, as well as their internal structuration,

²⁰⁶ The six logical works comprising Aristotle's *Organon* are *Categories*, *On Interpretation*, *Priori Analytics*, *Posterior Analytics*, *Topics* and *On Sophistical Refutations*.

²⁰⁷ Diogenes Laertius, 2017. *Lives of Eminent Philosophers*. Cambridge: Cambridge University Press, Book 10: 28-30.

²⁰⁸ *Ibid.*, Book 10:31-32. What is important here is that the Epicurean criteria for truth "are our sensations, preconceptions, and feelings." We will see how Kant, in Epicurean fashion, revalues the sensible in the *Transcendental Aesthetic*, by claiming that sensibility is not merely a confused version of the rational, but rather that the only way objects can be given to us immediately is in sensibility.

²⁰⁹ AA 9:14. English translation from Cambridge Edition.

²¹⁰ AA 9:14.

²¹¹ CPR A795/B823.

²¹² CPR A11/B25.

corresponds to common modern structurations of logical treatises with genuine Aristotelian provenance, such as the 1662 Port Royal logic.²¹³ What the treatment of pure reason according to elements and method points to is that reason's instrumental drive for expansion is subjected by Kant to a double treatment.

Elements, sources, and boundaries: the *Doctrine of Elements* and the canon

Within the context of the canon, reason's unruly expansions and the instrumental employment of logic are dealt with as a problem of proper bounds. The canon addresses the problems of bounds through a discourse on the mind's (*Gemüt*) immanent faculties (*Vermögen*) and forces (*Kräfte*), and the role that logic is assigned within that discourse. As such, it ventures to restrict what theoretical reason wants, drives, or strives to know to what it "can" know, meaning that its ends and questions are set in relation to its own proper powers, its faculties (*Vermögen*). The *Transcendental Doctrine of Elements* thus engages in the quasi-archeological work of first analyzing and then sounding the depth of the faculties (*Vermögen*) and forces (*Kräfte*), in the sense of legislating their competences. This is necessary for Kant since, as we have seen, he accuses theoretical reason of striving for ends that far exceed its faculties (*Vermögen*).²¹⁴ If reason's instrumental drive for expansion is to be averted, Kant thus claims that one firstly needs to ask, in proto-Deleuzian fashion, what reason and the faculties and forces of the *Gemüt* "can do."²¹⁵

Derived from both the Latin *facultas* as well as the Greek *dynamis*, the concept of *Vermögen* (faculty) in Kant is double-coded as both the "ability or power to achieve an end [... and] a potential for change which would be actualized through *energeia*."²¹⁶ Concerning the relation between faculty and force (*Kraft*), Kant adopted the distinction from Baumgarten's *Metaphysica*, where one finds the following ontological definition: "although positing a faculty and receptivity does not posit action or suffering, nevertheless such is possible when a power in the stricter sense is posited. This will be the complement of a faculty to act, i.e. that which is added to the faculty for the action to come to exist."²¹⁷

²¹³ Ulrike Santozki, 2006. *Die Bedeutung antiker Theorien für die Genese und Systematik von Kants Philosophie Eine Analyse der drei Kritiken*. DeGruyter: Berlin, p.74.

²¹⁴ CPR Avii.

²¹⁵ Gilles Deleuze, 1992. "What Can a Body Do?" In *Expressionism in Philosophy: Spinoza*. New York: Zone Books, p.217-235.

²¹⁶ Howard Caygill, 1995. *A Kant Dictionary*. Oxford: Blackwell Publishing, p.190, entry on Faculty (*Vermögen*).

²¹⁷ Alexander Baumgarten, *Metaphysics. A Critical Translation with Kant's Ellucidations, Selected Notes and Related Materials*. Translated by C. Fugate, and J. Hymers. London: Bloomsbury Academic Publishing, §220.

This means that forces are the actualization of faculties, they must be added for a faculty to be actualized.²¹⁸ The Kantian critical project as a whole thus begins by dissecting the *Gemüt* into its different faculties and forces in order to derive its adequate and corresponding ends. Consequently, reason's unruly and transcendent drive is placed within a 'restricted economy', in which reason's legitimate ends are deduced from a discussion of what it is lawfully capable of, and thus without the instrumental, but ultimately illegitimate, use of logic.

The Kantian proposal to set ends in relation to faculties can be seen clearly in his discussion of metaphysics. The preceding discussion has shown that the expansions of theoretical reason are either aimed towards places far removed from empirical cognition, so as to gain access to metaphysical questions, or to its supposed real world referents. Kant's damning diagnosis of metaphysics had already started two decades prior to the *Critique of Pure Reason*, in his essay *On the One Possible Proof of the Existence of God*. It was here that Kant first introduced the proposition that existence is not a predicate.²¹⁹ This proposition is taken up in slightly altered form again in the *Critique of Pure Reason*. Kant claims that modal judgments, which are judgments concerning the possibility, existence, or necessity of things, do not add anything to the content of any judgment. Instead, a modal judgment "concerns only the value of the copula in relation to thinking in general."²²⁰ Kant thus fundamentally shifts the grounds of the metaphysical debate, proposing that, from now on, judgments need to be reflexively justified internally to thought itself.

In similar fashion to how he shifted the discourse of special metaphysics towards the validity of our judgments, Kant also ventures to displace questions about the essence of being (general metaphysics), thus effecting a radical reformulation of ontology. His transcendental idealist position proposes that "objects of experience [...] are never given in themselves, but only in experience, and they do not exist at all outside it."²²¹ What this means is that our concepts (as well as space and time as our forms of intuition) as a whole do not pertain to things "out there," as a transcendental realist position would have it. But neither does Kant doubt the reality of external objects, like a Cartesian skepticism would.

²¹⁸ This is an important distinction that Kant employed in the overall structure of the *Critique of Pure Reason*. While the first half of the *Doctrine of Elements* engages the faculties of sensibility and understanding, the second half deals with the power of judgment, and thus the actualization of the conditions of possibilities.

²¹⁹ Immanuel Kant, 1911. "Der einzig mögliche Beweisgrund zu einer Demonstration des Daseins Gottes." In *Philosophische Bibliothek Band 47*. Leipzig: Verlag von Felix Meiner, p.5.

²²⁰ CPR B100.

²²¹ CPR A492/B521.

Instead Kant promotes a more complex, two-fold proposition. Taking the place of “the proud name of an ontology,”²²² Kant’s *Transcendental Analytic* articulates his transcendental idealist position: while concepts and intuitions are nothing but representations, and thus have no existence outside our mind, they are at the same time the universal and necessary conditions for the possibility of things “for us.”

Kant thus argues that one must reflexively inquire into how it is that one can judge (correctly) in order to address questions concerning both special metaphysics as well as the nature of being, and thus general metaphysics. Rather than remaining within the old metaphysical discourse, with its question of “What is X?”, the Kantian project fundamentally displaces the place of inquiry. In directing our attention to the reflexive question of how we can correctly judge X, Kant puts forward a fundamentally novel approach to philosophizing, which begins by investigating and securing the elements for cognition, and the faculties and forces of cognition, before venturing to employ them in philosophical arguments. This undertaking of investigating, delineating, and securing the elements of cognition is the explicit subject matter of the canon, which is the first half of Kant’s critical remedy to reason’s instrumental drive to expansion by means of logic.

The canon and its technical critiques

As the above has shown, a canon must contain “the sum total of the *a priori* principles of the correct use of certain cognitive faculties in general,”²²³ since it is to provide a faculty with a set of principles (*Grundsätze*) that allow it to correctly, and thus lawfully, go about its business. This firstly means that a canon holds the rules for the correct use of a faculty. It secondly lays claim to totality, as being able to enumerate all of the necessary rules of a cognitive faculty, be it the faculty of understanding, the power of judgment, or the faculty of reason. Thirdly, these rules are characterized as *a priori*, which means that they lie ready-for-use in the mind (*Gemüt*), rather than coming to us from experience. Being a problem of principles means, fourthly, that it is a “starting point.” According to Kant, principles contain the grounds for other judgments, while they are themselves not grounded in anything higher or more universal,²²⁴ thus implying that a principle cannot be analyzed or dissolved into further constitutive parts; rather, it must be presupposed for everything else. The canon must thus hold the totality of immediately certain, *a priori*

²²² CPR A247/B303.

²²³ CPR A796/B824.

²²⁴ CPR B188.

principles pertaining to a cognitive faculty. In this way, Kant's critical project aims to reformulate metaphysics as the search to uncover and delineate the immanent limits of human reason by means of the canon, rather than abusing logic as an instrument in the search for hidden truths such as the metaphysical objects of God, freedom, and the immortality of the soul.

The correlation of a canon with the correct use of a faculty means that, of our three faculties of cognition (understanding, power of judgment, and reason), only understanding and the power of judgment can have a canon in the positive sense. The canons of the faculty of understanding and the power of judgment are both expounded in the *Transcendental Analytic*. Consisting of the *Analytic of Concepts* and the *Analytic of Principles*, the two-part *Transcendental Analytic* is said to lay open "the elements of the pure cognition of the understanding and the principles without which no object can be thought."²²⁵ However, the canon constituted by reason, as our third faculty of cognition, consists in a *Transcendental Dialectic*, rather than an *Analytic*. Here, the canon functions as a "critique of the understanding and reason in regard to their hyperphysical use, in order to uncover the false illusion of their groundless pretensions."²²⁶ The *Dialectic* thus lays open the logic of illusion in reason's misguided attempts to syllogistically expand our knowledge of the special metaphysical objects of the soul, freedom, and God. This means that, differently to the theoretical faculties of understanding and judgment, reason in its theoretical use has only a negative canon, which illustrates the contradictions of reason if it fails to proceed according to its critical limits. At the same time, reason nonetheless acquires a positive use of its canon, once the discussion moves beyond theoretical reason. But since it will then be a canon for reason in its practical rather than theoretical use, it is only the second *Critique*, *Critique of Pure Practical Reason*, that explicitly expands on it.²²⁷ As such this positive canon will not feature in the present discussion, which focuses on the *Critique of Pure Reason*.

Within the domain of the *Critique of Pure Reason*, Kant consequently specifies only two positive canons: a canon for the faculty of understanding and a canon for the power of judgment. Concerning the canon of the faculty of understanding, Kant proposes that general logic is nothing but the pure formal law of the understanding. In laying out the rules for thinking so that thought is in accord with itself, general logic contains the mere

²²⁵ CPR A62/B87.

²²⁶ CPR A63/B88.

²²⁷ CPR A796/B825.

formal rules of thought, and, as such, it is to be sought and tried internally to thought itself. As a canon for the merely formal use of the understanding, general logic, however, does not suffice to show and secure how the use of the cognitive faculty by itself is possible. This is the case because the canon of general logic is not only devoid of content, but, furthermore, completely indifferent to any content provided to it from elsewhere. Thus, if there is to be a “lawful” relation between reason’s forms and any possible content of thought (be it the actual world of objects or metaphysics), which does not rely on the transgressive use of logic as an instrument, there needs to be something else, something more, to make possible this very relation between theoretical reason and its other.

And indeed, Kant proposes that, complementing the first, purely formal, outline of the canon of general logic, there is another side to the canon of the faculty of understanding, which comes onto the scene in order to secure precisely a non-instrumental relation of reason’s forms to its content. Going by the name of *Transcendental Logic*, Kant argues that it is “a logic in which one did not abstract from all content of cognition.”²²⁸ His claim is nothing less than that transcendental logic is at once pure and endowed with content at the same time. How is such a logic possible?

Famously distinguishing between the understanding and intuition as the two sources of cognition, Kant’s transcendental idealism proposes that “in whatever way and through whatever means a cognition may relate to objects, that through which it relates immediately to them, and at which all thought as a means is directed as an end, is intuition.”²²⁹ On the one hand, there is thus the understanding, with its universal concepts for thinking objects, and, on the other hand, there is sensible intuition (*Anschauung*), which is charged with relating these thoughts to actual objects. This means that Kant’s critical remedy to the illegitimate (ab)use of logic as an instrument hinges on his claim that objects can only be “given” to us, in the sense of being affected by them in sensibility.²³⁰

Of our two faculties of cognition, sensibility (*Sinnlichkeit*) is thus identified by Kant as the faculty through which objects can be given to us. However, the clause “in whatever way and through whatever means cognition may relate to objects” indicates that there are different ways in which cognition can relate to objects. In fact, intuition is itself said to have two sides to it. Differentiating between the form and the matter of intuition, Kant

²²⁸ CPR A55/B80.

²²⁹ CPR A19/B33.

²³⁰ CPR A19/B33.

argues that while the matter of intuition is always subject to being empirically given, the same does not apply to the forms of intuition. Constituting a curiously non-sensible side of sensibility, the forms of intuition are specified as nothing other than space and time, which, Kant claims, lie a priori ready in our mind (*Gemüt*) in a similar way to the concepts of the understanding. Thus while the matter of intuition is always dependent on a particular experience of a given object, the forms of intuition can never be given in experience.

The receptive character of sensibility is consequently complemented by a non-sensible intuition, which, in a similar manner to the concepts of the understanding, can be anticipated and enumerated prior to any particular experience.²³¹ Specified as space and time, the a priori forms of intuition are what

allows the manifold of appearance to be intuited as ordered in certain relations [...]. Since that within which the sensations can alone be ordered and placed in a certain form cannot itself be in turn sensation, the matter of all appearance is only given to us *a posteriori*, but its form must all lie ready for it in the mind *a priori*.²³²

It is thus intuition's non-sensible form, which is explicitly said to allow for the given content of intuition to be "ordered." The forms of intuition are thus charged by Kant with the action of ordering (*ordnen*) and placing (*stellen*) the matter of intuition given to us.²³³ Thus, if an object is to be received by us, it is explicitly subject to being placed and ordered according to the a priori forms of intuition.

Lingering for a moment on the word placing (*stellen*), it appears that the preceding discussion of the a priori forms of intuition, which are specified by Kant as what allows reason to relate to things outside of itself rather than illegitimately extending itself by means of logic alone, might have led us to the source of what Heidegger calls enframing (*Gestell*). In *the Question Concerning Technics*, Heidegger claimed that the essence of modern technics as enframing (*Gestell*) is at once an ordering attitude (*bestellendes Verhalten*) and a quasi-"hunter" that "pursues and entraps [*nachstellen*] nature"²³⁴ to reveal itself as standing reserve (*Bestand*). This ordering attitude of enframing (*Gestell*) was then argued to first have shown itself in modern metaphysics, and specifically in Kant's

²³¹ If taken together, the a priori forms of intuition and understanding make up what Kant calls conditions of experience, since, rather than coming to us from the experience of any given particular object, they are what is supposed to first make experience possible.

²³² CPR A20/B34.

²³³ CPR A20/B34.

²³⁴ Heidegger, *The Question Concerning Technology*, p.21.

Critique of Pure Reason. For Heidegger, the placing and ordering (*stellen*) of the matter of intuition into the forms of space and time thus do not denote neutral or even harmonious acts that make the reception of sense objects possible. Instead, they are the transcendental condition for the technical domination of nature. The acts of placing (*stellen*) and ordering (*ordnen*) performed by the pure forms of intuition are, Heidegger argues, fundamentally a technics of entrapping and pursuing (*nachstellen*) nature.²³⁵ The verbs *stellen*, *nachstellen*, *bestellen* all denote the operations by which enframing (*Gestell*), as modern metaphysics' heir to the mind (*Gemüt*), challenges the real to reveal itself as an identifiable and spatio-locally determinable number of scientific objects.

Heidegger's reading goes right to the heart of the Kantian problematic, since Kant put forward the canon precisely in order to restrict reason's illegitimate instrumentality. To this end, the canon charged intuition, rather than the logic of the understanding, with relating reason to its "other." Heidegger's point is thus that, in critically avoiding the (ab)use of logic as an instrument by charging intuition rather than logic with the responsibility for relating to the world of things, Kant came to articulate, in a quasi-ironic fashion, nothing less than the very essence of modern technics as enframing (*Gestell*), an insight which is said to have escaped him.

Heidegger was, however, not the only to put forward a radically technical reading of the canon. Differently from Heidegger, Stiegler does not identify the essence of modern technics as Kant's remedy to reason's instrumentality, but instead argues that Kant's pure and a priori canon is made possible by a "subterranean" technics. The crux of Stiegler's argument is that Kant thought it possible to critique the faculty of reason independently of its embodiment in "books and systems."²³⁶ Against Kant's claim of treating reason in general, Stiegler however insists that it is not possible to consider the faculty of pure reason in general without its material, technical conditions. For Stiegler, Kant's insistence on a pure faculty of reason did thus not get rid of its technical conditions, but demoted them to a subterranean mode all the while relying on them. Both Heidegger and Stiegler thus read Kant's canon, explicitly put forward in order to restrict reason's instrumental drive for expansion, as either articulating nothing less than the essence of modern technics, and or as relying on a repressed, subterranean technics.

²³⁵ Ibid.

²³⁶ CPR Axii

Interestingly enough, however, Heidegger and Stiegler were not the first to critique Kant's supposedly pure canon in technical terms. As a matter of fact, this very accusation was already directed at Kant during his own lifetime. And, as the following will show, Kant furthermore responded to the explicitly technical critique of his canon. It thus appears that, in their insistence on the implicit status of a technical problematic in the canon, both Heidegger and Stiegler failed to account for a discussion that Kant himself partook in, which centered precisely on the question of the canon as a technical problematic.

The canon, an a priori manufacture?

As pointed out by Catherine Malabou in *Before Tomorrow: Epigenesis and Rationality*,²³⁷ the German Enlightenment thinker and cousin of J.W. von Goethe, J.G. Schlosser, critiqued Kant in 1795 for having reduced cognition to “a mere form-giving manufacture [*Formgebungs-Manufactur*].”²³⁸ The term *Manufactur* (Latin: *manus* hand; *facere* to make and produce) refers to the historical moment in between artisanal and industrial production, in which previously decentralized crafts were first united under one roof and according to a common aim, as, for instance, in the gathering of turners, metal workers, and goldsmiths under the roof of a carriage manufacture. Schlosser's critique is that Kant's critical philosophy has abstracted from all matter (*Materie*) of cognition. As a pure system of forms, it presents itself as a problem of shaping - of giving form to matter, just like a manufacture. Schlosser thus at once accuses Kant, despite the explicit aims of transcendental logic, of having lost all content of cognition, of having further transformed philosophy and in specific the a priori into a proto-industrial form-giving mechanism that shapes the world in its image.

Kant responded to Schlosser's accusation one year later, in his 1796 essay *On a Recently Prominent Tone of Superiority in Philosophy*. He referred to Schlosser's critique as typifying “the dismissive habit of crying down the *formal* in our knowledge (which is yet the preeminent business of philosophy) as a pedantry, under the name of ‘a pattern-factory.’”²³⁹ Distancing the specific kind of “work” performed by the cognitive faculties from the accusation thrown at him by Schlosser, Kant explicitly writes that the work of

²³⁷ Malabou, C., 2016. *Before Tomorrow, Epigenesis and Rationality*. Translated into English by Shread, C. Cambridge: Polity Press. p.6

²³⁸ J.G. Schlosser, *Plato's Briefe nebst einer historischen Einleitung und Anmerkungen*, p.182fn.

²³⁹ Immanuel Kant, 2004. “On a recently prominent tone of superiority in philosophy.” In *Theoretical Philosophy after 1781*. Translated by G. Hatfield, M. Friedman, H. Allison, and P. Heath. Cambridge: Cambridge University Press, 8:404.

schematization is neither an “arbitrary *form-giving* undertaken by design [*planmäßig*], or even machine-made [*fabrikenmäßig*] (on behalf of the state).”²⁴⁰ While the translators have translated *fabrikenmäßig* as “machine-made,” the original German term refers not to the machine but to the factory. In the eighteenth and nineteenth centuries the terms manufacture (*Manufaktur*), workshop (*Werkstatt*), and factory (*Fabrik*) were often used synonymously,²⁴¹ and the qualification “(on behalf of the state)”²⁴² refers to the French model of King Henri IV, by which manufactures were state-founded, a practice that was soon adopted throughout Europe.²⁴³

Kant’s defense of his system of cognition hinges on the claim that the “work” of synthesizing the a priori forms of cognition takes place entirely prior to the “manufacture” of dealing with any given, empirical object. It is the “careful work of the subject, his [*sic*] own faculty (of reason).”²⁴⁴ Thus, while, on the one, hand Kant distinctly distances himself from Schlosser’s accusations, he objects neither to the characterization of his canon as a “making” of a priori forms, nor to the characterization of the empirical cognition of objects as a manufacture. What he interestingly *does* object to is the idea that there might be something like a pre-existing pattern that informs and thereby gives the rule to this making of a priori forms. Kant’s objection is thus directed against there being a pre-planned and anticipated design that is carried out in this a priori making of transcendental forms, but not against the making of forms on the transcendental level as such.

A priori operations (*Handgriffe*)

The exchange between Kant and Schlosser is indeed remarkable, as it includes Kant’s response to Schlosser’s technical critique of the canon. As the above has shown, Kant’s response insists on the idea of a spontaneous and free production of transcendental forms of cognition. This work, which is said to be the responsibility of the subject and its reason, can be nothing other than the work of synthesis and schematization. In the *Critique of Pure Reason* Kant explains that synthesis, in the most general sense, is “the action of putting different representations together with each other and comprehending their manifoldness in

²⁴⁰ AA 8:404.

²⁴¹ This can also be seen in Kant’s reference to “*fabrikenmäßige Arbeit*” in his *Lectures on Anthropology*. See AA 7:148.

²⁴² AA 8:404.

²⁴³ D. Schäfer. *Aspekte der Wirtschaftsgeschichte Würzburgs vom Ausgang des Alten Reichs bis zur Gegenwart. Probleme, Projekte, Entwicklungen, Märkte, betriebe, Firmen, Niederlassungen, Beschäftigung, Unternehmer und die Rolle der Stadt in zwei Jahrhunderten*. In U. Wagner, U. *Geschichte der Stadt Würzburg*. S.1319n48.

²⁴⁴ AA 8:404.

one cognition.”²⁴⁵ From the ancient Greek *syn*, “together,” and *tithenai*, “to put, to place,” synthesis is thus the name for the action of assembling and unifying different representations into one. What fundamentally differentiates synthesis from its counterpart analysis is that, while analysis aims at clarifying and taking apart something that is given in its entirety, synthesis, according to Kant, is always excessive and thus expansive. This means that something can, and, in fact, must, always be added to a given concept for a judgment to be synthetic rather than analytic. Synthesis thus adds something to the concept, something that is true, but this truth cannot be perceived internally to the concept itself, according to the formal principle of non-contradiction. The problem of synthesis then, is of how to lawfully step outside of the concept, or, to put this differently and in reference to the aim of the canon as restricting the (ab)use of logic as an instrument, how to lawfully expand a concept by means other than logic.

In its more specific form, synthesis designates the act of schematization, discussed in the *Schematism* chapter. Schematization is the procedure of putting forward, in the sense of synthesizing, the famous “thirds,” by which a category of the understanding, is supplied with a sense impression. Only by way of the schematism does it thus become possible for a category to apply to, in the sense of lawfully connect to, the sensible world. When pressed to lay out the precise workings of schematization, however, Kant admits that “this schematism of our understanding with regard to appearances and their mere form is a hidden art in the depths of the human soul, whose true operations we can divine from nature and lay unveiled before our eyes only with difficulty.”²⁴⁶ Kant thus concedes that it is impossible to lay open exactly how it is that schematization in fact takes place. It is, he says, a “hidden art [*verborgene Kunst*].”²⁴⁷

It is remarkable to see Kant take recourse to the word art (*Kunst*) here, since it is mostly used in the *Critique of Pure Reason* to refer to the undesired organon and in reference to sophism, as, for instance, in the characterization of the “logic of illusion – a sophistical art.”²⁴⁸ There are, however, three different mentions of the word “art” in the *Critique of Pure Reason* that deviate from these negative uses. The first positive use of the term is precisely the characterization of schematization as a hidden art. The second mention of art outside the context of sophism can be found in reference to human art (*menschliche*

²⁴⁵ CPR A77/B103.

²⁴⁶ CPR A141/B181.

²⁴⁷ CPR A141/B181.

²⁴⁸ CPR A61/B86.

Kunst).²⁴⁹ The last noteworthy use of the word art can be found in the third chapter of the *Doctrine of Method*, entitled *The Architectonic of Pure Reason*. The opening sentence of this section reads as follows: “By an architectonic I understand the art of systems. Since systematic unity is that which first makes ordinary cognition into science, i.e., makes a system out of a mere aggregate of it, architectonic is the doctrine of that which is scientific in our cognition in general[...].”²⁵⁰ In a seemingly incompatible sense, the general notion of art in the *Critique of Pure Reason* refers to the organon and sophism, schematization, human art in general, and the “art of systems” concerning reason’s natural systematicity.

The notion of art employed in the schematism chapter belongs to a general notion of art that takes its cues from *Können* (ability, skill). As ability or skill, this notion of art gains its definition in direct relation to Aristotle’s *technē* (art, technics), which distinguished the art of production (*poiesis*) from theoretical knowledge and science (*epistēmē*).²⁵¹ Kant’s 1790 *Critique of the Power of Judgment* will mirror this Aristotelian outline, as it argues that ability and skill (*Können*) is indeed to be differentiated from knowledge (*Wissen*). Art as skill (*Geschicklichkeit*) essentially denotes a practical faculty

distinguished from a theoretical one, as technique [*Technik*] is distinguished from theory (as the art of surveying is distinguished from geometry). And thus that which one can do as soon as one knows what should be done is not exactly called art. Only that which one does not immediately have the skill to do even if one knows it completely belongs to that extent to art.²⁵²

Thus, in the *Critique of the Power of Judgment*, art (*Kunst*) that is dependent on skill (*Können*) is part of the practical domain of *Technik*, rather than that of theory or science. But how are we to make sense of this reference to art, and thus the practical domain, that is central to the question of the canon, when this is supposedly the “science of the mere estimation [*Beurteilung*] of pure reason, of its sources and boundaries”?²⁵³

The *schematism* chapter is located in the second part of the *Transcendental Analytic*, and as such in the *Doctrine of Elements*. Its precise place is in the first section of the two-fold *Transcendental Analytic of Principles*. Putting forward a canon for the power of judgment,

²⁴⁹ CPR A626/B654.

²⁵⁰ CPR A832/B860.

²⁵¹ Aristotle, 2004. *The Nicomachean Ethics*. Translated by J.A.K. Thomson. London: Penguin Books, 1139b23.

²⁵² CJ 5:303.

²⁵³ CPR A11/B25.

the *Analytic of Principles* does not ask about the possibility of judgment, but rather asks how judgment, concerning the subsumption of particulars under universals, can be done correctly. In surprising fashion, then, the *Transcendental Analytic of Principles* does not ask a transcendental question of possibility, as the preceding *Analytic of Concepts* did. In asking how to correctly judge and give concepts to intuitions, and vice versa, it appears to be closer to the problematic at the heart of the *Transcendental Doctrine of Method*, while nevertheless being a part of the *Transcendental Doctrine of Elements*. Essentially consisting of a methodological inquiry into judgment, schematization introduces a notion of art as skill and ability into the heart of the canon. According to Kant, there is thus an art and technics proper to the transcendental domain, the hidden art (*Können*) of schematization.

The hidden art of schematization thus refers to theoretical reason's skill for bringing forth "thirds" to mediate between concepts and intuitions. In determining schematization as hidden, however, Kant forecloses the possibility of true insight into the technics of this transcendental art of judgment, this art of subsuming particulars under universals. Thus in a certain sense Heidegger and Stiegler are right in their assessment of the implicit yet constitutive role played in the canon by technics. The explicit designation of the schematism, upon which all knowledge depends in the last instance, as a hidden art and thus as not subject to insight means, that rather than solving the aporia of judgment,²⁵⁴ Howard Caygill writes in *Art of Judgment*, "the *Critique of Pure Reason* is founded upon an aporia."²⁵⁵

At the same time, however, schematization is explicitly called an art, be it hidden or not. And this hidden art is subject to one more important determination of its functioning. Schematization, Kant writes, takes place by way of "*Handgriffe*."²⁵⁶ The translators of the Cambridge translation of the *Critique of Pure Reason* have translated the German expression "*wahre Handgriffe*" as "true operations."²⁵⁷ However while the English term "operation" derives from the Latin *opus* as a work or product of the general notion of

²⁵⁴ On Kant's elaboration of the aporia of judgment see Caygill, H., 1989. *Art of Judgment*. Oxford: Basil Blackwell p.4. The aporia of judgment designates the infinite need for ever further rules to be able to distinguish whether something stands under a rule or not. In his aim of finally 'solving' the aporia, Kant's account of the exercise of judgment, however, remains circular. Caygill shows how judgment „is found to always presuppose judgment: its discriminations require rules, and its rules require discriminations.“ The same circular problem also applies to transcendental logic.

²⁵⁵ Caygill, H., 1989. *Art of Judgment*. p.5

²⁵⁶ CPR A141/B181.

²⁵⁷ CPR A141/B181.

art,²⁵⁸ it lacks reference to the hand, which is one of the stems of the composite German term. What is further lost is Kant's reference to the action of grasping, common to both the German term *Begriff* (concept), which, as a discursive form of unity, "grasps" and unifies the matter of presentation, and *Handgriff* (operation), which designates the action of grasping or seizing something by hand. While in German both nouns explicitly refer to the act of grasping, the characterization of the act of combination as a *Handgriff* transfers the problematic of unification (grasping) from the domain of discursivity and conceptuality to that of the hand and technical-manual skill. The unifying procedure of a *Handgriff* designates both the act of grasping by hand and the form and unity of a grasping hand, both of which retain their relation to the skill of working by hand. By determining the art of schematization as proceeding by way of *Handgriffe*, Kant thus insists that schematization is not guided in its act of combination by yet another discursive rule, and so on ad infinitum. By transferring the rule of unity from the domain of the concept (*Begriff*) to that of the operation (*Handgriff*), Kant aims to avoid the aporia of judgment, at least in theory.

Despite Kant's explicit refusal to call a priori synthesis a *manufactur*, schematization turns out to be, quite literally, a *Manufaktur*, as the art of schematization is specified as the hidden art of making and fashioning by hand. But rather than referring to the economic reality of a pre-industrial workshop or factory, which unified several mechanical arts under one roof and according to one aim, the manufacture performed by the art of schematization is said to be a free, rather than mechanical production, performed by the power of imagination. As such, despite quite literally grasping and making schemas by hand, the art of schematization is understood by Kant as free from any pre-planned and anticipated design, such as that provided by the conceptual order of the understanding. Consisting of a number of *Handgriffe*, the art of schematization is said to take place without prior conceptual form of unity and rule provided by the faculty of the understanding, which is the very point that Kant's 1796 response to Schlosser essentially rests on.

As the previous discussion has shown, Kant's canon has been read by both Heidegger and Stiegler as a fundamentally technical problematic, despite Kant's explicit designation of the canon as the first part of his critical remedy for reason's instrumentality. According to Heidegger, Kant's canon reveals the essence of the modern concept of technics, which he famously called *Gestell* (enframing). Heidegger argues that enframing shows itself clearly

²⁵⁸ CJ 5:303.

for the first time in Kant's canon, while escaping Kant's own explicit awareness. According to Stiegler, Kant's pure and a priori canon is itself made possible by a technical milieu, despite Kant's aim of treating the faculty of pure reason on its own and thus independently of its embodiment in books and systems.

When Schlosser accused Kant, during his lifetime, of having reduced cognition to a mere form-giving manufacture, the word *die Technik* was never explicitly mentioned. The ensuing discussion between Schlosser and Kant nonetheless circles around an essentially technical problematic. And as I have argued in the preceding section, despite Kant's rejection of Schlosser's accusation, the Kantian canon relies, in the last instance, on the "art" of schematization, which proceeds by way of the technical skill of forming by hand (*Handgriff*). And as if that were not enough, it is precisely by way of characterizing schematization as a manufacture that Kant believes to have circumvented the aporia of judgment. As an art (*Können*), the circumvention is however excessive to knowledge. The difference between *Handgriff* and *Begriff* according to Kant means, that schematization can take place freely, and thus without taking recourse to ever further conceptual rules provided by the faculty of the understanding. In the last instance, Kant's canon of transcendental logic subsequently however derives its self-proclaimed superiority over general logic by means of the art of schematization, and thus a set of technical-manual *Handgriffe*, which provide the ground for judgment and the secure knowledge claims that flow from it. In the last instance, the canon thus relies on an art (*Können*).

CHAPTER 2.2 Instrumental expansion and the *Transcendental Doctrine of Method*

As I have shown in the preceding section, the first route taken by Kant in his critical attempt at restricting reason's (ab)use of logic as an instrument by means of a canon has problematically led to the art of schematization, understood as a skill of grasping by hand. While I have argued that this art is essentially a technical problematic, within the *Doctrine of Elements* it is, however, not explicitly called technics (*Technik*), but instead referred to under the more general term of art (*Kunst*).

However, the canon was only one of the two ways by which Kant aimed to critically restrict reason's instrumental drive for expansion. The second route of critical restriction laid out by Kant in the *Critique of Pure Reason* takes place in the second book, entitled the *Transcendental Doctrine of Method*. In distinction from the canon put forward in the *Doctrine of Elements*, the *Transcendental Doctrine of Method* focuses on method and thus on how reason puts its elements to use. While the *Transcendental Doctrine of Elements* was said to take inventory of all of reason's rightful materials and elements (its faculties and forces), the subsequent *Transcendental Doctrine of Method* follows up by asking what we can do with these materials. Engaging with the affordances of reason's materials through the metaphor of building, it is "concerned not so much with the materials as with the plan, [...], we have to aim at an edifice in relation to the supplies given to us at the same time suited to our needs."²⁵⁹ This means that the *Transcendental Doctrine of Method* engages the sum-total of reason's secure and a priori elements laid out by the canon as if it were a building, and sketches its systematic outline. It thus functions as somewhat of a manual for building, addressing both the question of what kind of house reason wants to build as well as what it can realistically afford to build.

Kant's reference to building, sketching plans, and bringing forth systems is by no means a mere rhetorical device. In the *Jäsche Logik*, Kant refers to method as a "logical art [*logische Kunst*]"²⁶⁰ which is said to properly belong to the "technical"²⁶¹ part of logic. Thus, while the canon as the first half of Kant's critical remedy to reason's instrumentality was already shown to rely on the art (*Können*) of schematization as the technical-practical skill of grasping by hand (*Handgriffe*), Kant explicitly terms the subsequent method, which contains the second part of Kant's critical restriction of reason's instrumental drive for

²⁵⁹ CPR A707/B735.

²⁶⁰ AA 9:18.

²⁶¹ AA 9:18.

expansion, technical. As I will argue in the following, the *Doctrine of Method*, while itself explicitly aimed at restricting reason's instrumental drive of expansion, is further proof of Kant's explicit engagement with technics (*die Technik*). As I will show in the following, Kant developed his concept of technics out of two different genealogies.

The emergence of the German terms *die Technik* and *die Technologie*

In order to understand Kant's employment of the adjective "technical" (*technisch*) in the above citation, I propose to engage with the work of German linguist Wilfried Seibicke, who in 1968 published a study entitled *Technik – Versuch einer Geschichte der Wortfamilie um τεχνη in Deutschland vom 16. Jh. bis etwa 1830*. Seibicke's historical linguistic study traces the German terms *die Technik* and *Technologie* from their first emergence in the sixteenth century until the first half of the nineteenth century, where their usage became so widespread and frequent that a genealogical linguistic study becomes impossible. This philological excursion is important as nothing proves a priori that the German terms *Technik* (technics) and *technisch* (technical) meant the same during Kant's time as they do today. And furthermore, as the preceding discussion has shown, Kant introduced a technical part of logic in order to treat reason's instrumental expansion, already indicating that there might be a difference between instrumentality on the one hand and technics on the other. What, then, is the specifically German history of the words *Technik* (technics) and *Technologie* (technology), and what role did Kant play in the history of these terms?

By means of an introduction Seibicke sums up the state of literature in four comprehensive and partly paradoxical points, which have also surfaced in the preceding discussions of Heidegger, Simondon, and Stiegler's accounts of the history of technical thought. Seibicke argues that, firstly, the German word *die Technik* is often considered to stand in a direct relation to the ancient Greek term *techne*, which would function as either model or counter-model for the modern German term. Secondly, accounts leap from the ancient Greek concept directly to the industrial revolution, which is then said to have brought forth the modern concept of *die Technik*. Thirdly, this modern concept of *die Technik* is either treated as a completely new phenomenon or as a mere stage of the development of *homo technicus*.²⁶² And fourthly, lexicographical sources are said to state that the German terms

²⁶² Wilfried Seibicke, 1968. *Technik. Versuch einer Geschichte der Wortfamilie um τεχνη in Deutschland vom 16. Jahrhundert bis etwa 1830*. Düsseldorf: VDI Verlag, p.6.

have been adopted from French and Germanized during the eighteenth century.²⁶³ Seibicke's project aims to systematically refute all four of these points, via a discussion of German texts and dictionaries from the first emergence of the word root *techn-* in the scholarly Neo-Latin of the sixteenth century up until the first half of the nineteenth century.

With regards to the first and fourth points, he claims that there is no sufficient evidence that the German terms have been adopted and developed from the French language. Concerning the modern German word *die Technologie*, Seibecke shows that the term was in fact first introduced in writing in Germany in 1777 by the German scholar Johann Beckmann, a contemporary of Kant's. What is important to note about Beckmann's concept is that he explicitly took recourse to the Greek word root as mere "linguistic matter," without, however, seeking to transpose the historical meaning of the term.²⁶⁴ Instead, Beckmann's aim was to develop a new concept of *die Technologie*, which he intended to refer to his newly invented science of the comprehensive, systematic treatment of the handicrafts and industrial processes, considered from the point of view of transforming natural resources into products.²⁶⁵ Due to Beckmann's lectures, which were later published in his book *Anleitung zur Technologie* (1777), his scientific reputation grew rapidly throughout Europe, and it was not long until the new meaning of the German term *Technologie* was subsequently adopted into both French and English. Seibecke's argument is supported by ample lexicographical evidence, which shows that the respective modern French and English meanings of the term only begin to appear in French and English dictionaries from 1800 onwards, and thus following Beckmann's new science of *Technologie*.

The French philosopher of science and technology Jan Sebestik also grants an important position to Beckmann, as he contextualizes Beckmann's efforts of establishing a science of *Technologie* in Germany in relation to both France and England. His claim is that eighteenth century Germany felt a necessity "to fill the scientific and the technological gap"²⁶⁶ after the long wars of the seventeenth and eighteenth century. Next to the quickly industrializing Great Britain and its science of *Economy*, developed by Adam Smith and Ricardo, as well as the artisanal and politically advanced France with its *Encyclopedie* by

²⁶³ Ibid., p.7.

²⁶⁴ Ibid., p.148.

²⁶⁵ Ibid., p.134.

²⁶⁶ Jan Sebestik, 1983. "The rise of the technological science." In *History and Technology: An International Journal*, 1:1, 25-43. Harwood Academic Publishers GmbH, p.29.

Diderot and D'Alembert, Germany was economically ruined and politically backwards. Unlike the *Encyclopedie*, Beckmann's science of *Technologie* was, however, not meant for the wider population or artisans themselves. Rather than dealing with detailed descriptions or issues of technical pedagogy, the science of *Technologie* was initially intended as a strategic discipline, and developed by Beckmann for future politicians and state managers, most of whom at one point or another passed through his teaching.²⁶⁷

Kant, however, surely did not refer to Beckmann's empirical science of *technology* when he called methodology the technical part of logic. And indeed, complementing the eighteenth century German development of the science of *Technologie* by Beckmann, Seibicke shows that the word *Technologie* had already lived a long life in an altogether different domain. In fact, the Latin term *technologia* and a whole host of derivative terms had been employed since the sixteenth century in scholarly logical and dialectical debates. The philosophical term *technologia* had first appeared in France in 1565, in *De methodo libellus* by Adrianus Turnebus, before the German protestant metaphysician Clemens Timpler employed it in his 1606 *Metaphysica systema methodicum*. The scholarly meaning of *technologia* emerged out of the confrontation between the Aristotelian definition of *techne*, understood as a subjective habit (*hexis*), and the Stoic definition of *techne* as a system of rules.²⁶⁸ With the Stoic definition taking the upper hand, from then on *technologia* denoted the systematic organization of the disciplines of the *ars liberalis*.²⁶⁹ Heinrich Alsted adopted the term *technologia* from Timpler in his 1610 work *Panacea philosophica, id est facilis, nova et accurate methodus docendi et discendi universam encyclopedia*, in which one section is called *De Canonica et Technologia*. Two years later, Alsted then differentiated between four *praecognita* in the general theory of knowledge put forward in his *Philosophia digne restitua*. The first *praecognita* was *Archeologia*, and as such concerned with eternal truths, followed by *Hexiologia* as the doctrine of habitus and the different kinds of knowledges. The third *praecognita* was called *Technologia*, dealing with the systematic properties of the sciences in relation to one another, with the final *Canonica* containing the pedagogic doctrine of rules.²⁷⁰

In seventeenth century philosophical scholasticism the term *Technologia* thus designated the systematization of the sciences and the arts. This is supported by an entry in the 1653

²⁶⁷ Ibid., p.31.

²⁶⁸ Seibicke, *Technik*, p.101.

²⁶⁹ Ibid., p.102.

²⁷⁰ Ibid., p.102-103.

philosophical dictionary *Lexicon philosophicum* by Joh. Micraelius, which explicates *Technologia* as “doctrina de proprietatibus, deque ordine & numero disciplinarium, sive illae sint Philologicae, ut Grammaticae, Rethoricae &c. sive Philosophicae, tam theoreticae quam practicae; sive superiorum facultatum, ut Theologicae, Juridicae & Medicae.”²⁷¹

Apart from denoting the systematization and doctrine of the arts, from the seventeenth century the philosophical notion of *technologia* also begins to designate the terminology specific to an art, usually referred to as *terminus technologicus*. Johann Walch’s entry on the newly Germanized term *Technologie* in his 1726 *Philosophisches Wörterbuch* reads as follows:

Technologie heißt die Lehre von den Kunst-Wörtern, wodurch man insgemein solche Wörter versteht, welche Sachen bedeuten, die in einem gewissen Stand sich befindlichen Personen eigen sind. [...] Man kann sie in ungelehrte und gelehrte Teilen, davon iene in den Handwercken und gemeinen Künsten; diese in den gelehrten Handwercken und gemeinen Künsten; diese in den gelehrten Wissenschaften vorkommen, und wieder entweder allgemeine oder besondere sind; Die allgemeinen welche von allen Gelehrten gebraucht werden, befinden sich in der Philosophie, sonderlich in der sogenannten Ontologie, z.E. causa, effectus, principium, principatum, subiectum, adiunctum, substantia, accidens u.d.g, die besonderen aber in der Theologie, Rechts-Gelehrsamkeit u. Medicin.²⁷²

This means that from the beginning of the eighteenth century onwards the German term *Technologie* also refers to the doctrine of “technical terms” specific to a discipline. As such it applies not only to the special sciences and arts, but also to philosophy, in the sense that ontology provides the most universal “technology” for all other sciences.

Seibecke shows that it was in the work of German philosopher Christian Wolff, who for the most part was writing at the same time as Walch, that the term *Technologie* was first applied to the artisanal crafts, thus providing an important step towards the general,

²⁷¹ Joh. Micraelius, 1653. *Joh. Micraelii lexicon philosophicum*. Jenae: Impensis J. Mamphrasii, Sp.1058. “[...]the doctrine of the properties, about the order and the number of disciplines, that are either philological, as grammar, rhetorics, & c. or philosophical, both theoretical as practical; or the higher faculties, as theology, Medical & Juridicial.”

²⁷² Johann G. Walch, 1726. *Philosophisches Lexicon*. Leipzig: Verlegt Joh. Friedrich Gleditschens seel. Sohn, Sp. 2514f. “Technology is the doctrine of art-words [technical terms], which generally designates words that refer to things that are peculiar to people in a certain trade. [...] They can be divided into unlearned and learned parts, the first of which refer to the handicrafts and common arts; the latter refer to the learned crafts and common arts; these occur in the learned sciences and are either general or special; The general ones that are used by all scholars are of philosophy, especially in the so-called ontology, e.g. causa, effectus, principium, principatum, subiectum, adiunctum, substantia, accidens and the like, but the special ones in theology, legal scholarship and the like medicine.”

contemporary meaning of *die Technik*.²⁷³ Wolff's aim was to build a philosophical system that would include all human knowledge and rational action. Consequently, this system included the mechanical-practical arts. Thus, the Wolffian account of *Technologie* must not be understood as a doctrine of art words or technical terms (*Kunstwörterlehre*) specific to a science or trade, as was still the case for Walch. Instead, it is explicitly called a *Kunstlehre* (doctrine of art), which concerns the practical, artisanal, and mechanical arts themselves.²⁷⁴

Following Wolff, Seibicke then moves on to credit Kant with, firstly, shortening the medieval scholastic notion of *Technologie* into *die Technik* and, secondly, introducing the shortened term into German philosophy. In between the years 1781 and 1800, thus excluding Kant's pre-critical as well as post-critical works, Seibicke finds a total of 71 explicit references to *die Technik*, *technisch* and *technicism* in Kant's texts.²⁷⁵ Due to the frequency of use, Seibicke concludes that these terms must have belonged to Kant's steady vocabulary. Seibicke roughly identifies two complementary meanings of the term *Technik* in Kant's works. On the one hand, he argues that Kant employs the term *Technik* to refer to the method of systematization and the doctrine of technical terms. On the other hand, Kant will also reintroduce the Aristotelian notion of *techne* as skill and ability, as was demonstrated in the preceding discussion on the canon and the art of schematization.

The first meaning of technics here is explicitly in line with the old scholastic *Technologie*, as the problem of technical terminology and systematization. This meaning of the Kantian notion of *Technik* occurs, for instance, when Kant writes in the *Critique of Pure Reason* that his manner of division and systematization of philosophical categories surely differs from that of the "[technics] of the logicians."²⁷⁶ It is also employed in this sense in the previously discussed *Jaesche Logik*, where Kant writes that "[...] logic would thus have a *dogmatic* and a *technical* part. The first would be called the *doctrine of elements*, the second the *doctrine of method*. The practical or technical part of logic would be a logical art in regard to order and to logical terms of art and logical distinctions."²⁷⁷ Both of these references show that Kant employed his shortened terms *Technik* and *technisch* to refer to

²⁷³ Seibicke, *Technik*, p.127.

²⁷⁴ Ibid.

²⁷⁵ Ibid., p.181. Seibicke was able to look at the Kant-index of the Academy edition as it was being prepared by Gottfried Martin before completion. Seibicke thus only refers to books I-IX of the Academy Edition, due to which his count is relatively low.

²⁷⁶ CPR A70/B96. Guyer and Woods have translated the German word *Technik* as "technique," for which I have substituted the more encompassing "technics."

²⁷⁷ AA 9: 18.

the systematization of technical terminology intrinsic to questions of methodology. The entire second book of the *Critique of Pure Reason* thus essentially contains the *technical* part of the *Critique*. According to Seibicke, Kant's recourse to the term *Technik* instead of *Technologie* is the result of the rapid adoption of the new meaning of *Technologie* after Beckmann's 1777 *Anleitung zur Technologie*. Kant might have decided to shorten the term used to designate the scholarly concept of systemization of concepts and rules to *Technik* in an attempt to differentiate the older, philosophical genealogy of *Technologie* from Beckmann's newly founded science.²⁷⁸ The employment throughout Kant's lectures on logic of the Latin *termini technici*, designating the technical terms specific to a science and always in reference to problems of method, gives further indication of Kant's engagement with the medieval notion of *Technologie*.²⁷⁹

In a surprising turn of events, the inquiry into the history of the German word *die Technik* thus revealed Kant as the first to have not only used this shortened German term, but as having introduced the shortened term into German philosophy. Following Kant's frequent use of the Germanized and shortened word, Seibicke shows that the term was quickly adopted by Kant's contemporaries and later readers, which can be well observed in the works of Schiller, Goethe, and so on.

Seibicke's study thus shows that within the German university of the eighteenth century there were two complementary strands of thought concerning the terms technics (*Technik*) and technology (*Technologie*). On the one hand, Beckmann invented the new science of technology with his 1777 book *Anleitung zur Technologie*. On the other hand, Kant shortened and employed the term *Technik* in contradistinction to Beckmann, but in direct relation to the medieval scholastic notion of *Technologie* as a problem of philosophical methodology. As such, Kant's use of the term, at least concerning problems of method, stems from a history that aligns itself with the Stoic, rather than Aristotelian, notion of *techne*, and thus with an idea of technics that is not intrinsically differentiated from the systematicity of science. Rather, technics is here designated a problem of theoretical philosophy, as it explicitly refers to the methodological problem of systematization and terminology. Essentially, then, for Kant the terms technics (*Technik*) and technical (*technisch*) are at root not a problem of instrumentality, use, or intrinsically empirical

²⁷⁸ Seibicke, *Technik*, p.183.

²⁷⁹ Immanuel Kant, 1992. *Lectures on Logic*. Translated by M Young. Cambridge: Cambridge University Press. See Blomberg Logic, §3; Vienna Logic, p.795 and p.820; Hechsel Logic, p.114 and p.117; Dohna-Wundlacken Logic, p.781

phenomena, already indicating that his explicit notion of technics sits uneasy within the narrative of metaphysical technical thought told by Heidegger, Simondon, and Stiegler, since here technics since ancient Greece has always been employed in contradistinction to the systematicity of science. Paying attention to the particular genealogy of the German term *die Technik* essentially troubles the simple, narrow account of the history of technical thought told by Heidegger, Simondon, and Stiegler. Seibicke's prominent inclusion of Kant in the development of the German term *die Technik* challenges Heidegger, Simondon, and Stiegler's assertions that Kant could not, or simply did not, think technics: the preceding excursion into Seibicke's study has clearly shown that Kant thought technics. At the same time, however, technics meant something different for Kant than it did for Heidegger, Simondon, and Stiegler, the details and history of which, however, escaped all of Heidegger, Simondon, and Stiegler.

Technics in the Transcendental Doctrine of Method

Returning to the technical *Transcendental Doctrine of Method* in light of the preceding discussion of Seibicke's study, one can see that Kant's method - the technical part of logic - is organized into four parts: the discipline, the canon, the architectonic, and finally the history of pure reason in its theoretical use.²⁸⁰ The first chapter on discipline directly addresses reason's mode of expansion, meaning its method of "building," while the canon lays out the rightful extent of what can be built. The third chapter on the architectonic then deals with the form of unity employed in the process of building, while the fourth and final chapter concludes the *Critique of Pure Reason* with Kant's eclectic history of the chief revolutions of theoretical reason according to the concept of the object, modes of knowledge, and in respect to method.

As the preceding discussion on the *Critique of Pure Reason* has shown, Kant only turns to discuss methodological concerns after reason has delineated and familiarized itself with its legitimate elements, faculties, and forces. Following the *Transcendental Doctrine of Elements*, Kant's treatment of method is thus aimed directly against Descartes' *Discourse on Method* and the philosophical practices that take their cues from Descartes, who sought to identify the true method and criterion for truth at the outset. In the *Critique of Pure Reason*, method is instead to come last. The post-position of method harbors a radical critique and attempt to break away from a long history of philosophizing, from Descartes

²⁸⁰ CPR A708/B736.

to Leibniz until Kant's own teacher Christian Wolff, which as a whole is based on the difference between mathematical and philosophical modes of reasoning.

The *Discipline of Pure Reason* distinguishes between two ways in which theoretical reason puts its elements to use. According to Kant, however, these two ways are not equally intrinsic and thus proper to philosophy. On the one hand, there is the properly philosophical method, which legitimately belongs to the domain of philosophy. And on the other hand, there is the geometrical-mathematical method of construction, which essentially belongs to the domain of mathematics rather than philosophy. Differently to philosophy and its metaphysical objects of being, God, the soul, and the world, mathematics concerns itself only with concepts of magnitude. As such, the central difference between philosophical and mathematical concepts lies in the fact that, when it comes to mathematics, its concept "already contains a pure intuition in itself."²⁸¹ Consequently, mathematical reason can legitimately move from a concept to its corresponding object in pure intuition via construction, just like a geometer who ventures to draw a triangle. To a priori construct a concept in intuition means to supply it with its corresponding intuition through a priori presentation (*Darstellung*). Such an a priori presentation would be entirely illegitimate if the concept had any relation whatsoever to a possible content of intuition, since such a content would always have to be given empirically, and thus a posteriori. Since mathematics, however, concerns itself only with the pure a priori forms of intuition, which are already contained in a concept of magnitude, it "gives the most resplendent example of pure reason happily expanding itself without assistance from experience."²⁸²

Hoping to share in the apodictic certainty of such a pure a priori mode of expansion, philosophy itself tries to adopt the mathematical-geometrical method for its own expansions. However, Kant vehemently argues against the adoption of this externally derived method in philosophy, as he claims that "the mathematician can build nothing in philosophy except houses of cards, while by means of his method the philosopher can produce nothing in mathematics but idle chatter."²⁸³ In attempting to construct according to the geometric-mathematical method, meaning by means of concepts alone, philosophy aims to build a "tower that would reach the heavens."²⁸⁴ But in the end it will be left with

²⁸¹ CPR A719/B747.

²⁸² CPR A712/B740.

²⁸³ CPR A727/B755.

²⁸⁴ CPR A707/B735.

nothing but a “house of cards.” This is the case, Kant argues, since, in distinction to mathematics, when it comes to philosophizing there are no such things as definitions, axioms and demonstrations. Firstly, only mathematical reasoning is said to deal with apodictically certain definitions, meaning that “the concept is first given through the definition, it contains just that which the definition would think through it.”²⁸⁵ Philosophy, on the other hand, cannot properly speaking define its concepts a priori. Instead it must restrict itself to analytically dissecting concepts into their elements. And, differently than deriving from definitions as in mathematics, philosophical concepts only gain their validity via their adequacy to objects, which in any case always have to be given empirically.

Secondly, and concerning axioms as intuitive principles that are immediately certain a priori, for Kant philosophy has, strictly speaking, no single principle “that deserves the name of an axiom.”²⁸⁶ This might come as a surprise, since the first principle in the *Analytic of Principles* carries the name *Axioms of Intuition*. However, Kant argues that “the principle that was introduced there was not itself an axiom, but only served to provide the principle of the possibility of axioms in general, and was itself only a principle from concepts.”²⁸⁷ Differently to mathematics, philosophy does not have intuitive principles (*axioms*) principles but only discursive principles (*acroams*), which must always be deduced and can never be a priori commanded.

The third and last point concerns demonstrations as apodictic, intuitive proofs. When it comes to philosophy, Kant writes, “experience may well teach us what is, but not what could not be otherwise. Hence empirical grounds of proof cannot yield apodictic proof.”²⁸⁸ Consequently, only mathematics is said to contain demonstrations, since its cognitions are derived from the construction of concepts in a priori intuition. Philosophy, on the other hand, is dependent on “acroamatic (discursive) proofs” when seeking to secure the objective validity of its principles. As such, its principles are subject to discussion and discursive challenge, “conducted by mere words (the object in thought).”²⁸⁹

What becomes clear, then, is that Kant’s critique of philosophy’s employment of the geometrical-mathematical method is one and the same as his critique of reason’s drive to expansion by means of the instrument of logic alone. To employ the geometrical-

²⁸⁵ CPR A729.

²⁸⁶ CPR A732.

²⁸⁷ CPR A733.

²⁸⁸ CPR A734.

²⁸⁹ CPR A735.

mathematical method in philosophy thus essentially means to use logic as an instrument of expansion. Seeing the relation between the critique of reason's use of logic as an instrument and Kant's critique of the history of philosophical method has two essential consequences. Firstly, it shows that Kant understands the history of metaphysical methodology to be fundamentally the history of instrumental reason. Secondly, however, it also shows that the *Critique of Pure Reason* as a whole and from its outset is essentially a critique of philosophical methodology, and thus a critique of the technical part of logic and its instrumentality. This is essentially the case despite the fact that the discussion of the technical part of logic is short in comparison to the longer and more prominent *Doctrine of Elements*, as well as following after it. What remains to be shown, then, is whether the *Transcendental Doctrine of Method* will, in a similar way to the *Transcendental Doctrine of Elements*, remedy reason's instrumental use of logic by way of yet another technics.

Instrumentality, technics, and the problem of addiction

Kant's outright rejection of the geometrical-mathematical method has most certainly been underappreciated in Heidegger's inclusion of Kant in the movement of modern metaphysics towards its fulfillment in modern technics. Dedicated entirely to the enframing *Entwurf* (mathematical sketch) of modern metaphysics, Heidegger's argument here is that this can be best observed in Kant's *Critique of Pure Reason*, as it is dedicated to a discussion of the universal and necessary conditions for both experience and objects of experience, which Heidegger also calls the thingness of things. As the preceding chapter has shown, Heidegger argues that the mathematical sketch of modern metaphysics appears clearly in the fact that, with the Kantian a priori forms, "the givens of everyday getting around in the world [das umgänglich alltägliche gegebene] are construed as mere material,"²⁹⁰ which, once ordered and organized, can then come into view as objects of mathematical-physical science.

However, the preceding discussion has shown that the site of Kant's two-fold critical intervention in both the *Doctrine of Elements* and the *Doctrine of Method* had itself been aimed against reason's instrumentality. The Kantian canon is essentially constituted against instrumental reason, as it aims to lay down reason's proper bounds (famously claimed to be experience), restricting logic from organon to canon. The *Doctrine of Method* follows on from the canon by legislating a properly philosophical method over and

²⁹⁰ Heidegger, *The Question Concerning the Thing*, p.145.

against the employment of the geometric-mathematical method throughout the history of philosophy, which, according to Kant, is testimony to reason's instrumentality in its ill-conceived intention of becoming "master over nature."²⁹¹ The Kantian critical intervention thus explicitly aims to restrict instrumental reason in its intention of becoming metaphysical "master over nature," thus at heart anticipating the Heideggerian critique of the mathematical sketch.

We are faced with a complicated situation. On the one hand, Kant would most certainly have sided with Heidegger in his critique of the employment of the geometrical-mathematical method in philosophy. As such, Heidegger appears to have radically underappreciated the reflections contained in the *Doctrine of Method*. At the same time however, and as I will show in the following, Kant's critical restriction of the technical *Doctrine of Method* introduces another notion of technics, a positive technics, since reason's instrumental predicament is far worse than initially assumed.

The current state of reason, Kant writes, is not only characterized by its problematic drive for expansion, whereby it pushes itself to instrumentalize logic in its attempt at constructing a tower of reason by way of its problematic geometric-mathematical method. Theoretical reason is furthermore said to be *addicted* to its speculative expansions (*spekulative Erweiterungssucht*).²⁹² The characterization of reason as *süchtig* (addicted) engages the relation between reason and its expansions in a pathological setting in a two-fold manner. Firstly, reason's addiction points to the fact that, while reason's metaphysical questions are said to arise from the very nature of universal reason itself, the consequent act of expanding cannot be said to come deliberately. To be addicted to expansion means that reason does not freely "choose" to expand, but that it compulsively expands whether it wants to do so or not, simply because it cannot but do so.

In the *Anthropology from a Pragmatic Point of View*, Kant refers to addiction²⁹³ in his discussion of the four levels of the faculty of desire: propensity (*Hang, propensio*), instinct (*Instinkt*), inclination (*Neigung, inclination*) and finally passion (*Leidenschaft, passio animi*). Passions are the most severe forms of "inclination that can be conquered only with

²⁹¹ CPR A724/B752-A725/B753.

²⁹² CPR A786/B814, my translation. Guyer and Woods translated *Erweiterungssucht* as "lust for speculative expansion." However, *Erweiterungssucht* translates literally as "expansion addiction," with *Sucht* referring to addiction.

²⁹³ The German term *Sucht* is non-systematically translated as *mania* in the Cambridge edition of the *Anthropology from a Pragmatic Point of View* and as *lust* in the *Critique of Pure Reason*.

difficulty or not at all by the subject's reason."²⁹⁴ The difficulty in dealing with passions, Kant writes, is that they give rise to a number of addictions (*Süchte*), which pathologically push us to purposively strive for an object (honor, revenge, dominance etc.) that is, however, forever removed and thus out of one's reach. The tricky thing about passions and addictions lies in their ambiguous proximity to reason. Kant writes that passions "can even co-exist with rationalizing."²⁹⁵ This is the case firstly because it is unclear whether one can ever really get rid of passions. Passions are like poison that causes a permanent illness. Consequently they do not admit of a cure, but only of palliative care.²⁹⁶

Secondly however, addictions involve a level of deliberation and rational action, which means that they can take on a problematic semblance of reason. Kant writes that they take on "the appearance of reason; that is, they aspire to the idea of a faculty connected with freedom, by which alone ends in general can be attained."²⁹⁷ Passions and addictions thus engage in deliberations about the means best suited to reach an end, with the end itself, however, being "prescribed [... by] inclination."²⁹⁸ As such it would probably be more accurate to characterize the deliberation involved in a passion or addiction as a quasi-deliberation, which in fact comes closer to plotting about how to best achieve an end. Thirdly, and perhaps most importantly, addictions take on the appearance of reason in its aim to acquire all possible means that can lead to its end. As such, they seem to extend somewhat beyond particularity, taking on a quasi-universal reach. What remains is nevertheless a crucial difference between the quasi-rational appearance of addictions and universal reason. Addictions "aim merely at the possession of the means for satisfying all inclinations which are concerned directly with the end. [...] Possessing the means to *whatever* aims one chooses certainly extends much further than the inclination directed to one single inclination and its satisfaction."²⁹⁹ As such, despite the ambiguous proximity between the passions and rational-purposive action, Kant proposes that the two can be separated according to the criterion of universality. This is because, concerning universal reason, both means and ends are subject to deliberation and rational choice.

In light of the discussion of the quasi-rational appearance of passions and addictions, the problem one encounters when approaching the *Erweiterungssucht* (addiction to expansion)

²⁹⁴ AA 7:251.

²⁹⁵ AA 7:266.

²⁹⁶ AA 7:252.

²⁹⁷ AA 7:270.

²⁹⁸ AA 7:266.

²⁹⁹ AA 7:270.

characteristic of reason is that, according to the *Critique of Pure Reason*, it is universal reason itself which is here said to be addicted. What Kant seems to be proposing, then, is that reason is addicted to its ends of general and special metaphysics, and that these ends “arise from the nature of universal human reason.”³⁰⁰ Thus, differently to the addictions in the *Anthropology*, where ends are set by inclinations, the metaphysical ends of reason arise from within universal reason itself. Reason, then, is characterized as driven and addicted to answering these questions, with the history of metaphysical inquiry being denigrated into a quasi-rational semblance of plotting about the instrument best suited to achieve these ends.

The B-Edition of the *Critique of Pure Reason* describes the problematic in the following way. Metaphysics, meaning the inquiry into objects like God, the immortality of the soul, and freedom, is indeed a “natural predisposition [*Naturanlage*],”³⁰¹ meaning that human reason naturally engages, always has and always will engage, in metaphysical inquiry. It is naturally driven towards metaphysics. However, if reason is to overcome what have so far been mere “groundless assertions,”³⁰² metaphysics must be raised from a natural predisposition, and thus from the level of the drive and addiction, to the level of a free science. It is in this sense that the explicit aim of the *Critique of Pure Reason*, circling around the question “How is metaphysics possible as a science?”,³⁰³ must be understood. And it is this very process of transition, from metaphysics as reason’s addiction to metaphysics as a science which is to be brought about by the *Critique of Pure Reason*. How, then, is this transition to be achieved?

The disciplining of reason

The problem that addiction poses to Kant’s critical project is that the boundaries between reason’s proper elements and its other are blurred to a much greater extent than initially anticipated. The *Anthropology* articulates this difficulty of distinguishing between inner and outer when it comes to the passions and addictions in the following way: “the unhappy man groans in his chains, which he nevertheless cannot break away from because they have already grown together with his limbs, so to speak.”³⁰⁴ Kant’s point here centers around reason’s instruments. While instruments initially seem to allow reason to expand its faculties and competences, and thereby it bounds, reason is at the same time said to have

³⁰⁰ CPR B22.

³⁰¹ CPR B22.

³⁰² CPR B22.

³⁰³ CPR B22.

³⁰⁴ AA 7:267.

become dependent and addicted to them, to the point of making the distinction between body and instrument impossible. Thus the same instrument at once allows reason to expand itself while also binding and enchaining it. Reason is bound to these instruments and has grown together with them: the *organon* as instrument has become an organ in a quasi-organic sense.

The problem that Kant has to confront as a consequence of reason's addiction is then two-fold. On the one hand, the problem remains to be one of a careful delineation of reason's legitimate elements and their proper bounds, which is the responsibility of the canon. On the other hand, however, reason's addiction to the instrument of logic reveals that the careful delineation of reason's proper elements undertaken by the *Doctrine of Elements* would never have sufficed to change reason's mode of conduct. Simply delineating and "knowing" about reason's legitimate elements and its proper bounds are not enough in the face of reason's addiction. Knowledge alone seems to be powerless here, since reason cannot but impulsively (ab)use logic as an instrument, simply because it is addicted. Since most of the *Critique of Pure Reason* is filled with considerations of elements, faculties, and forces, and thus problems of the canon, it has hitherto appeared that method might be somewhat of an afterthought, and indeed of secondary importance to the Kantian critical endeavor. For most of the *Critique of Pure Reason* it appears that the canon suffices in order to change reason's instrumental and constructive mode of conduct and bring metaphysics "on the secure course of a science."³⁰⁵ Due to reason's addiction to speculative expansion, the *Discipline of Pure Reason* now introduces the need of further subjecting reason to a discipline in order to overcome its method of constructing by means of instruments. The discipline is to work on reason's inner nature, subjecting reason and its natural dispositions to a program of rehabilitation, so as to allow it to become capable of proceeding according to the rules laid out by the canon. The discipline is to work on reason's ability or skill in following the rules laid out by the canon, whereby reason is to rise from its natural state of addiction to that of a free science of metaphysics.

In working on reason's ability, the second book of the *Critique of Pure Reason* is now the theatre in which the specifically German, philosophical meaning of *Technologie* as *Kunstwörterlehre*, and thus terminology and systematization, meets the notion of general art (*Kunst*) that derives from *Können* (ability, skill), which was previously introduced in the discussion of the art of schematization. Rather than employing, as Walch does, the term

³⁰⁵ CPR Bvii.

Kunstwörterlehre, which denotes the terminology specific to a domain, be it the sciences or philosophy, Kant speaks of method as *logische Kunst* (logical art). Employing the term *Kunst* as well as *Technik*, rather than *Kunstwörter* (art words, technical terms) or *Kunstwörterlehre* (the doctrine of technical terms), consequently indicates that for Kant method does not only denote a meta-discourse on *Kunst* and *Technik*, but refers to the general notion of art (*Kunst*) itself, designating the practical ability [*Fertigkeit*]³⁰⁶ to proceed and bring forth according to rules.

In the *Critique of the Power of Judgment* (1790) Kant employs the Aristotelian distinction between science (*episteme*) and technics or art (*techne*) in the sense that there is a fundamental difference between what one can do and what one knows. “Only that which one does not immediately have the skill to do even if one knows it completely belongs to that extent to art.”³⁰⁷ When Kant thus speaks of method as a logical art - the properly technical part of logic - he refers to that aspect of logic which “one does not immediately have the skill to do even if one knows it completely.”³⁰⁸ Conjoining this notion of *Kunst* with the adjective *logisch* (logical), however, reveals that this notion of art is not determined in contradistinction to the systematicity of science. As an explicitly logical art, it designates theoretical reason’s ability (or inability) to follow rules and put forth logical systems according to these rules. Taking this thought to its conclusion then means that the system of reason, at stake in the *Transcendental Doctrine of Method*, must as a whole be understood as a “work” of the transcendental *Technik* of theoretical reason.³⁰⁹

However, in this work of building and systematizing, Kant reintroduces a difference between the forms of unity employed by reason. Technical unity, he writes, follows from empirical and therefore outer ends, due to which it is only ever capable of producing contingent unities of aggregation. Architectonic unity, on the other hand, has its end inside itself, according to which its parts are articulated through affinity rather than mere resemblance. Only architectonic unity is universal and necessary and thus properly worthy of the systematicity of science, relegating its technical counterpart to the empirical world of contingency and chance. While the *Critique of Pure Reason* upholds this distinction between the architectonic and technics, the later *Critique of the Power of Judgment* will revisit this very distinction as it explicitly aligns systematicity with technics.

³⁰⁶ CPR A709/B737.

³⁰⁷ CJ 5:303-304

³⁰⁸ CJ 5:303-304

³⁰⁹ See also Seibicke, *Technik*, p.190.

The discipline in question is thus meant to work on reason's "talent"³¹⁰ and skill of proceeding according to rules. As such, according to Kant reason's talent is subject to discipline and formation [*Bildung*], just like any other talent "that already has by itself a tendency to expression [*Antrieb zur Äußerung*]."³¹¹ We thus encounter the word-root *trieb* (drive) again, which the translators of the Cambridge Edition have here chosen to translate as tendency, with *Äußerung* (expression) referring to reason's technics of bringing forth logical systems (objectivation). What is to be disciplined and subjected to formation is thus reason's addiction to expansion and thus its compulsion to step beyond and outside itself in the process of constructing a house of reason. Kant suggests that the disciplinary formation that reason is to be subjected to is different from culture because culture produces skills additively, "without first cancelling out another one that is already present."³¹² What this means is that while culture works towards the formation of ever more skills next to one another, discipline works on an existing skill itself and changes it in the sense of both diverting its ends and shaping the very skill of achieving these ends. Discipline, Kant writes, wields "the compulsion [*Zwang*] through which the constant propensity to stray from certain rules is limited [*eingeschränkt*] and finally eradicated [*vertilgt*]."³¹³

As such, there appear to be two consecutive steps when it comes to discipline. At first, discipline only ever imperatively says "No!" to reason's present drive of expansion and objectivation (*Antrieb zur Äußerung*).³¹⁴ The first step of discipline is thus to whip reason into line. The martinet (*Zuchtmeister*)³¹⁵ doing the whipping is reason itself, which means that reason subjects itself to the practice of self-disciplining in order to shape its technical ability of proceeding according to rules. And while it is certainly "humiliating for human reason that it [...] requires a discipline to check its extravagances [...]," the fact "that reason can and must exercise this discipline itself, without allowing anything else to censor it, elevates it and gives it confidence in itself."³¹⁶

In a second step then, reason is said to undergo a change. As a result of being disciplined, reason no longer seems to have the same compulsive drive to step outside itself. Its previous addiction to expansion and objectivation via the instrumental use of logic has

³¹⁰ CPR A709/B737.

³¹¹ CPR A710/B738.

³¹² CPR A709/B737.

³¹³ CPR A709/B737.

³¹⁴ CPR A710/B738.

³¹⁵ CPR A769.

³¹⁶ CPR A 795/B823.

been cancelled [*aufgehoben*]. It has, Kant writes, been exterminated [*vertilgt*].³¹⁷ Differently to the *Anthropology*, where passions could only ever be dampened and admitted to palliative care, the *Critique of Pure Reason* thus proposes a more optimistic outlook on reason's addiction. Kant seems to suggest that reason can indeed be successfully disciplined, through which the transition from metaphysics as an addiction to a science could be accomplished. After being disciplined, reason is said to want what it should have, namely to proceed according to the laws, limits, and boundaries determinately laid out by the canon. Reason, he writes, "is not like an indeterminably extended plane, the limits of which one can cognize only in general, but must rather be compared with a sphere [...] from which its content and its boundary can also be ascertained with certainty."³¹⁸ Kant's point here is thus that after reason's technical talent has been disciplined, the sphere (of experience) will have become reason's proper bounds, and thereby its adequate object. Reason will no longer aim to expand itself beyond its proper bounds by means of the instrument of logic. The German word *abrichten* captures the double meaning of disciplining that Kant is referring to. At once denoting the compulsive measures of disciplining and habituation, it also evokes the work of re-orientating one's view and the change of perspective that necessarily comes with it. To be disciplined means precisely to change the orientation of one's ends.

After reason's technical talent for proceeding according to rules has been disciplined and reason has acquired the skill of following the rules set by the canon, reason's horizon will be congruent with the sphere of experience. What reason will want will be one with what it can and should have. Its transcendent drive to step outside itself via the instrument of logic will have been eradicated, and now reason will be fully content with immanence: it will want only what it can have in terms of what it is legitimately capable of. Philosophy as a whole, Kant tells us, "consists precisely in knowing its bounds,"³¹⁹ at once pointing to Kant's general Epicurean outlook on philosophy while also referencing Rousseau, who equally claimed that "a truly free man wills only what he can do, and does what pleases him [*ne veut que ce qu'il peut, et fait ce qu'il lui plaît*]."³²⁰

³¹⁷ CPR A709/B737.

³¹⁸ CPR A762/B790.

³¹⁹ CPR A727/B755.

³²⁰ Jean-Jacques Rousseau, 1959–95. *Émile*, in *Œuvres complètes*, vol. 4, Gallimard, La Pléiade, Paris, pp.308–9; cf. Rousseau, *Rêveries du promeneur solitaire*, in *Œuvres complètes*, vol. 1, p.1059; "'Lettre à Malesherbes,' 4 January 1762," in *Œuvres complètes*, vol. 1, p.1132.

CHAPTER 2.3 The many faces of technics in the critical framework

The point of departure of this first chapter, which began my investigation of the role and meaning of technics for Kant, was the identification and discussion of the general problem that motivated Kant's *Critique of Pure Reason* in the first place. I have argued that this general problem was reason's illegitimate and instrumental addiction to expansion. Kant's starting point was thus nothing less than reason's instrumentality, due to which reason compulsively employed logic as an instrument to expand itself towards places far removed from empirical experience, so as to gain access to metaphysical questions or to its supposed real world referents, which it wanted to master.³²¹ Instrumentality and the corresponding geometric-mathematical method of construction were shown to lie at the heart of reason's pathological predicament, prompting the Kantian critical intervention.

The consequent discussion of the critical framework, which aimed to place this unruly, instrumental, and ultimately pathological reason into a restricted, critical economy, was organized according to the two-fold route undertaken by Kant. Both of these routes took themselves recourse, in one way or another, to a technical remedy.

The canon was discussed as the first half of the critical remedy to reason's addiction to expansion by means of the instrument of logic, and the primary question posed to it was whether, with regards to reason's elements, it indeed succeeded in averting the intrusion of the instrumentality of technics. Heidegger, Stiegler, and Schlosser were all shown to have argued that, while the canon was intended as reason's path to emancipation from logical instrumentality, Kant implicitly articulated nothing else but technics. According to Heidegger, the canon harbored Kant's silent articulation of enframing (*Gestell*), and thus the essence of modern technics. According to Stiegler, the canon silently relied on a number of technical substrata in order to secure reason's non-instrumental course of conduct, which Kant believes to have analytically separated reason from. The subsequent elaboration on Schlosser considered both Schlosser's critique, charging Kant with reducing cognition to a mere form-giving manufacture, as well as Kant's answer to this charge. While the term *Technik* was not explicitly employed in this debate by either Schlosser or Kant, I argued that their encounter nevertheless circles around a technical problematic, meaning that Kant defended his canon from the charge of technics. The problem that I articulated is that, ultimately however, Kant relies on an art (*Können*) in order to secure schematization. I have argued that as an art, schematization is excessive to knowledge. It

³²¹ CPR A724/B752-A725/B753.

proceeds by way of the technical skill of forming by hand (*Handgriff*), and is thus quite literally a manufacture. In the last instance, Kant's canon of transcendental logic thus derives its self-proclaimed superiority over general logic by means of the art of schematization, and thus from a set of technical-manual *Handgriffe*, which, in the last step, secure the ground for judgment and the knowledge claims that flow from it.

The second path of critically restricting reason's instrumental (ab)use of logic took place in the second book of the *Critique of Pure Reason*, entitled *Doctrine of Method*. It was in the context of method that Kant's first explicit engagement with technics as technics (*die Technik*), rather than a general notion of art, took place. My argument concerning the role and meaning of method in Kant's critical aim at restricting the (ab)use of logic as an instrument focused on the role of discipline. The problem that discipline responded to was that simply knowing and stating the laws (the canon) according to which reason is to proceed lawfully was said to not be enough to keep reason from following its drive to expansion by means of instruments. This is the case because reason was diagnosed by Kant as being addicted to expansion. Consequently, reason is to be disciplined in order to "internalize," as it were, the law of the canon as its second nature. This internalization is a process of formation and habituation, after which reason's instrumental drive to stray from the law is supposed to be eradicated. And that which is to be formed and disciplined, is reason's skill, its talent of proceeding and bringing forth according to the canon, reason's technics.

In the *Critique of Pure Reason* there are thus two different strands of technical thought at play in the problematic of discipline and the formation of reason's very own "talent" for proceeding and bringing forth according to rules. On the one hand, Seibicke has shown how Kant was both aware of and intervened within the German concept of *Technologie* as the methodological problem of systematization and terminology, which derives from the medieval scholastic notion of *Technologia*. Kant was the first to shorten the Germanized term *Technologie* into *Technik*, most likely in order to distance this notion of technics from Beckmann's newly founded science of *Technologie*. On the other hand, this notion of method as a logical art and technics also employs a notion of a general concept of art (*Kunst*) that derives from skill and ability (*Können*), as "that which one does not immediately have the skill to do even if one knows it completely."³²² This is ultimately the case because method, the technical part of logic, subjects reason to a discipline in order to

³²² CJ 5:303-304

rehabilitate its inner nature to be able to follow the rules and respect the boundaries set by the canon. Only in this double-coding of technics as both systematization and ability (*Können*) can the Kantian engagement with method, addressed in the second book of the *Critique of Pure Reason*, be properly understood.

However, with a total of only six explicit mentions in the *Critique of Pure Reason*,³²³ the majority of which are to be found in the *Doctrine of Method*, my inquiry into the role and meaning of technics in the *Critique of Pure Reason* has been severely restricted. It is only in Kant's practical and aesthetic philosophy that technics will finally emerge from its shadowy existence, as the general notion of art as ability and skill (*Kunst* and *Können*) is aligned with and explicitly called *Technik* from then on. At the same time, the open contradiction between the systematic technics internal to methodological problems and the non-systematic technics of art as general skill continues to persist as it is subject to further renegotiation. The following chapter will thus critically trace how the positive notion of technics that Kant put forth in order to secure his critical restriction of reason's instrumental use of logic is subjected to further, explicit development from the *Groundwork of the Metaphysics of Morals* until the *Critique of the Power of Judgment*.

³²³ CPR A70/B96, A833/B861, A708/B736, A835/B863, A847/B875.

CHAPTER 3. TECHNICS BETWEEN THEORY AND PRACTICE: THE CRITIQUE OF THE POWER OF JUDGMENT

The preceding chapter, on the role and meaning of technics in Kant's *Critique of Pure Reason*, presented a two-fold picture. Firstly, as the *Doctrine of Method* shows, Kant was familiar with the medieval scholastic notion of *Technologie*. Shortened to *die Technik*, the concept was employed by Kant to refer to the methodological task of the systematization and organization of science. Method was here explicitly called a "logical art [*Kunst*]," providing the 'technical' part of logic.³²⁴ This logical art was shown to be subject to a double-determination as both systematization and ability (*Können*), as reason's talent or skill of systematization was subjected to a discipline. Secondly, the canon, providing the counterpart to the method, also revealed itself to harbor a technical problematic. While explicitly designed as the remedy to the problematic, instrumental organon of logic, the canon was itself shown to rely on the art (*Kunst*) of schematization, and thus, quite literally, the technical skill (*das Können*) of grasping and unifying by hand (*Handgriff*). What was at stake, then, was ultimately a technics of pure theoretical reason.

When it comes to the *Groundwork of the Metaphysics of Morals* (1785), technical imperatives will be approached by Kant as a problem of practical philosophy. In the subsequent *Critique of Practical Reason* (1788) Kant will however explicitly bring them back into the jurisdiction of theoretical philosophy. This move, however, raises the question of whether the alignment of the technical-practical with theoretical reason does not simply correspond to the distinction between pure and applied philosophy, in the sense that the technical-practical designates the mere application of theoretical knowledge, as argued, for instance, by Bernard Stiegler.

³²⁴ AA 9:18.

I will show in the following, that the *Critique of the Power of Judgment* (1790) affirms that technics is indeed the responsibility of theoretical rather than practical philosophy. This can be clearly seen when Kant writes about the second part of the *Critique of the Power of Judgment*, which explicitly elaborates a transcendental, rather than empirical technics, that it “could have always been appended to the theoretical part of philosophy.”³²⁵ Furthermore, Kant charges the idea of a technics of nature with the task of orienting and securing the understanding and its knowledge claims, whereby acknowledging that the aporia of judgment cannot be overcome by the schematism alone. What in the previous chapter was discussed as Kant’s problematic recourse to technical skills and a hidden art of grasping by hand, is thus now explicitly discussed by Kant under the name of a transcendental technical power. I will show that in the end it is neither nature, nor our judgments about it, which are properly speaking technical. What is “properly technical,”³²⁶ Kant writes, is our power of judgment itself.

³²⁵ CPR 5:170.

³²⁶ CJ 20:220.

CHAPTER 3.1 The system of philosophy and the place of technics within it

As the previous chapter has shown, the *Critique of Pure Reason* principally deals with pure, theoretical reason, thus implying that it is written from the point of view of a preceding distinction of reason into theoretical reason on the one hand, and practical reason on the other. Kant however only begins his investigation of a pure practical reason with the later *Groundwork of the Metaphysics of Morals* (1785) before finally writing his *Critique of Practical Reason* (1788). The *Groundwork of the Metaphysics of Morals* prefaces its discussion of practical reason with a systematic reflection on the ancient Greek classification of philosophy in general: “Ancient Greek philosophy was divided into three sciences: physics, ethics, and logic.”³²⁷ While general logic, as we have seen, is to function as a canon for the understanding and reason as the pure form of thought in general, both physics and ethics each have their own proper objects as well as sets of laws, belonging to what Kant calls material rather than formal philosophy.³²⁸ Physics sets out to determine the laws of nature, and ethics lays out the laws of the will as a causal actor within nature. Since each of these two sciences can have an empirical part as well as a pure a priori part, Kant concludes that metaphysics, as the pure a priori investigation of a determined set of objects, is in fact a two-fold affair. On the one hand there is a metaphysics of nature, and on the other hand a metaphysics of morals, the latter of which “has to examine the idea and the principles of a possible pure will and not the actions and conditions of human volition generally, which for the most part are drawn from psychology.”³²⁹ Following this fateful distinction, the subject of Kant’s investigation of practical philosophy consequently centers around the possibility of a pure will.

In the *Critique of Pure Reason* Kant had already offered a preliminary anthropological definition of the will when he wrote “in the human being there is a faculty of determining oneself from oneself, independently of necessitation by sensible impulses,”³³⁰ meaning that, while the human is certainly in nature, one of its faculties is simultaneously not subject to natural causality. The *Groundwork of the Metaphysics of Morals* then moved on to extend this anthropological determination of the will to that of living beings in general

³²⁷ Immanuel Kant, 1996. *Groundwork of the Metaphysics of Morals*. In *Practical Philosophy*, translated by M.J. Gregor, Cambridge: Cambridge University Press, 4:387 (hereafter GMM).

³²⁸ GMM 4:387.

³²⁹ GMM 4:390.

³³⁰ CPR A534/B562.

“insofar as they are rational,”³³¹ meaning that the will is a power found in the human as well as in possible other rational beings, leaving one to wonder who he might have had in mind (angels, aliens, etc.). The causal power of such a will is said to be two-fold. Firstly, representations can become the determining ground of the will, which then works on bringing forth – in the sense of causally producing – the object corresponding to this representation in actuality. This is the case in all kinds of purposive actions where empirical objects are brought forth, as in the handicrafts or arts, for example. The will is here determined by the determinate representation of, for instance, a table, which purposively works on putting forth the means (wood, paint, screws, etc.) as well as making a table out of these means according to the end: a table. What in general is called technical production can here be seen to refer to the conscious end-realization through the determination of the will.³³²

The will is however also the faculty by which a subject determines its causality independently of one’s physical capacity or technical expertise to do so or not – the will is the power of self-determination within rational beings.³³³ The difference between these two employments of the will is that, while they are both purposive, in the first case the will is determined by a concept belonging to the realm of nature, as the will works on bringing about an object in actuality that is possible according to the laws of nature, while, in the second case, the causality is equally purposive, but here the will is said to be free in the sense that it spontaneously determines itself. As such, the obligation is said to originate within itself, and has no end outside of itself, like in the first instance. Furthermore, the determining concept of the will does not belong to the realm of nature or sensible appearance at all. It is rather the idea of freedom that is determining here, the objective reality of which as “only an idea of reason” remains essentially uncertain.³³⁴ And while the first kind of technical purposiveness is thus properly speaking a matter of psychology, the second kind of employment of the will is the concern of metaphysics.

Were this self-determination of the will to take place without any sensuous or worldly interference, then the will of such a (however non-human and rather godly) rational being would be “the capacity to choose only that which reason independently of inclination

³³¹ GMM 4:446.

³³² However, according to the *Groundwork of the Metaphysics of Morals*, technical purposiveness is properly speaking a matter of psychology, rather than metaphysics.

³³³ AA 5:15.

³³⁴ GMM 4:455.

cognizes as practically necessary, that is, as good.”³³⁵ Such a being would have no needs for imperatives – for what it *ought* to do – since its will would fully coincide with the moral law of practical reason. The *Groundwork of the Metaphysics of Morals* proposes, however, that when it comes to the human there is only a partial overlap between the will and reason, since the human is determined by both aspects of its two-fold worldly and intelligible existence. For Kant, this dichotomy or double determination between nature and freedom is an essential characteristic of the human being, who most certainly exists in nature and is thus subject to the heteronomous laws of nature, while also standing under a wholly other set of laws, namely that of freedom, which are founded in reason only.³³⁶

The human, for Kant, is thus dependent on imperatives, a number of “oughts,” which are the representations of objective principles that are compelling to our ambiguous human will. There are two kinds of imperatives. On one side there are hypothetical imperatives, which represent “the practical necessity of a possible action as a means to achieving something else that one wills.”³³⁷ On the other side of this group of hypothetical imperatives Kant situates just one counterpart, which represents an act as objectively necessary in itself without relation to any end – the categorical imperative.³³⁸ While the categorical imperative is said to command objectively and universally, the hypothetical imperatives contain a certain level of contingency, as they are always oriented towards an end outside themselves (to satisfy a need or inclination). They represent a practical rule in relation to the will “that does not straightaway do an action just because it is good.”³³⁹ The imperatives are then classified in a three-fold scheme into “rules of skill [*Regeln der Geschicklichkeit*],” “counsels of prudence [*Ratschläge der Klugheit*],” and “commands (laws) of morality [*Gebote der Sittlichkeit*].”³⁴⁰ The first of these, Kant writes, can best be called “technical (belonging to art),”³⁴¹ the second pragmatic, and the third moral.

Only five years after the *Groundwork of the Metaphysics of Morals*, the unpublished first introduction to the *Critique of The Power of Judgment* (1790) contains the following reference to the classification of imperatives undertaken in the *Groundwork*:

³³⁵ GMM 4:412.

³³⁶ GMM 4:452.

³³⁷ GMM 4:414.

³³⁸ GMM 4:414.

³³⁹ GMM 4:414.

³⁴⁰ GMM 4:416.

³⁴¹ GMM 4:416.

This is the place to correct an error which I committed in the *Groundwork for the Metaphysics of Morals*. For after I had said that imperatives of skill command only conditionally, under the condition of merely possible, i.e. *problematic*, ends, I called such practical precepts problematic imperatives, an expression in which a contradiction certainly lurks. I should have called them *technical* imperatives, i.e., imperatives of art.³⁴²

In a curious manner, Kant seems to have forgotten that in the *Groundwork* he had already termed the first kind of imperatives “technical.” Furthermore, in the intervening *Critique of Practical Reason* (1788) Kant again referred to them as technical, in the following passage:

Propositions that in mathematics or physics are called practical should properly be called technical. For in these teachings it is not at all a question of the determination of the will; they only point out the manifold of the possible action that is sufficient to produce a certain effect, and are thus as theoretical as any proposition that asserts the connection of a cause with an effect. Whoever approves the effect must also be willing to approve the cause.³⁴³

Apart from twice insisting that the proper terminology for conditional imperatives, as well as precepts from mathematics, is to call them technical, the above quotations bear witness to Kant’s explicit attempt to re-organize the tripartite schema of the will into a two-fold structure, which, according to the *Groundwork*, was still said to be technical, pragmatic, and moral. The subsequent *Critique of the Power of Judgment* continues by proposing that technical imperatives do not belong to the field of practical philosophy, since, properly speaking, they concern the practical application of a concept of nature:

If the concept determining the causality is a concept of nature, then the principles are technically practical [*technisch-praktisch*], but if it is a concept of freedom, then these are morally practical; [...] the former will belong to theoretical philosophy (as a doctrine of nature), while the latter will entirely by itself constitute the second part, namely practical philosophy (as a doctrine of morals).³⁴⁴

This point is repeated again in the later *Metaphysics of Morals* (1797). Here, in reference back to the *Critique of the Power of Judgment*, Kant asserts that everything that is possible according to the laws of nature “depends for its precepts entirely upon the theory of

³⁴² CJ 20:200.

³⁴³ Immanuel Kant, 1996. *Critique of Practical Reason*. In *Practical Philosophy*. Translated by M.J. Gregor. Cambridge: Cambridge University Press, 5:26.

³⁴⁴ CJ 5:172.

nature.”³⁴⁵ Consequently it is from the *Critique of the Power of Judgment* onwards that the hitherto tripartite schema of the practical imperatives is replaced by the two-fold distinction between technical-practical (*technisch-praktisch*) principles and moral-practical (*moralisch-praktisch*) principles.³⁴⁶ And while moral-practical principles belong to practical philosophy properly speaking, dealing at once with the determination of the will and the concept of freedom, technical-practical precepts are explicitly said to be dealt with internally to theoretical philosophy.

In *Technics and Time, 3* Bernard Stiegler argues that Kant considered technics as a problem of application, signalling Kant’s subordination of technics to theoretical philosophy *tout court*. Technics, Stiegler writes, “is here indeed applied science: it has no opacity by *rights*; it can remain in the darkness of reason only *in fact* – by the *fact* of science’s incompleteness.”³⁴⁷ Understood as the mere application of science, Stiegler thus reads the Kantian notion of technics as essentially dependent on the state of development of science. Technics, for Kant, is said to be a mere stepping stone on the way towards the development of apodictic scientific knowledge, with Stiegler likening the Kantian relation between technics and the incompleteness of science to the ancient Greek Aristotelian determination of *techne* in relation to the incompleteness of nature (*physis*).³⁴⁸

Contrary to Stiegler’s arguments, however, and as I will argue in the following, the *Critique of the Power of Judgment* explicitly relies on a concept of technics that cannot be properly understood as the mere application of theoretical philosophy. I will show that in the *Critique of the Power of Judgment* Kant charges the technical with a transcendental function. As such, and in contrast to Stiegler’s proposition, technics does not only *not* follow from science, but it is also introduced and employed by Kant as what ultimately makes science possible.

³⁴⁵ Immanuel Kant, 1991. *The Metaphysics of Morals*. Translated by M.J. Gregor. Cambridge: Cambridge University Press, p.45/AA 218.

³⁴⁶ This point is also made by Gerhard Lehman in Lehmann, *Kants Nachlasswerk und die Kritik der Urteilskraft*, p.349.

³⁴⁷ Stiegler, *Technics and Time, 3*, p.193.

³⁴⁸ Stiegler, *Technics and Time, 3*, p.193.

CHAPTER 3.2 The *Critique of the Power of Judgment* and the problem of nature's unruly things

Despite Kant's adamant claim to have enumerated, in the *Critique of Pure Reason*, and specifically in the *Analytic of Principles*, all of the universal and necessary principles of the objectivity of objects, the *Critique of the Power of Judgment* explicitly deals with the problem of "unruly things." There are, Kant claims, some things that successfully resist the supposedly universal and necessary conditions of objects of experience put forward in the canon of the *Critique of Pure Reason*. In the face of these unruly things, the canon becomes powerless. Posing a problem in the properly philosophical sense, these unruly things are neither something, which would subject them to the canon, nor nothing, according to which we could treat them as ideas of reason. Upon encountering one of these unruly things we are puzzled. But how is it possible to encounter such unruly things in experience and thus as part of nature, while it is at the same time impossible to a priori account for their possibility by means of the canon?

While indeed problematic within the order of knowledge, Kant claims that there is a specific sense in which one can nonetheless "make sense" of these unruly things. It might not be possible to cognize these unruly things, specified as living and beautiful things, but, by introducing a difference between determining and reflecting judgment, Kant argues that it is nevertheless possible to reflectively judge (*beurteilen*) unruly things according to an altogether different principle. This principle, he claims, is called purposiveness (*Zweckmäßigkeit*).

Properly speaking, Kant offers two accounts of purposiveness. According to the first account of purposiveness, an end "is the object of a concept insofar as the latter is regarded as the cause of the former (the real ground of its possibility); and the causality of a concept with regard to its object is purposiveness (*forma finalis*)."³⁴⁹ This first, objective account of purposiveness is complemented by a second, subjective account, according to which and end is the "concept of an object insofar as it at the same time contains the ground of the reality of this object [...], and the correspondence of a thing with that constitution of things that is possible only in accordance with ends is called purposiveness of its form."³⁵⁰ Distinct from the principles of the understanding for determinate judgment, which the *Critique of Pure Reason* expounded in the *Analytic of Principles*, the subjective principle

³⁴⁹ CJ 5:220

³⁵⁰ CJ 5:180

of purposiveness is said to allow the power of judgment to reflexively judge (*beurteilen*) things in the absence of universal rules and principles supplied by the understanding, as it reflexively judges a thing as purposive for us. What this means is that, in a first step, upon encountering an unruly thing the power of imagination can take up the manifold of what is given in intuition. However, this very first step already proves problematic from the perspective of the *Critique of Pure Reason*: has Kant not explicitly claimed in the *Critique of Pure Reason* that the manifold of what is given must essentially be orderable and placeable by the a priori forms of intuition, which are, however, themselves always already pre-ordered by the categorical order of the understanding?

The A-Deduction of the *Critique of Pure Reason* specified that the understanding enters in the third mode of the three-fold synthesis.³⁵¹ The synthesis of recognition, performed by the understanding, thus renders the previous two modes of synthesis intellectual, as it is the concepts of the understanding that ultimately provide synthetic unity to a manifold of intuition. Thus, in the last instance, the synthesis of recognition must be said to precede even the ground provided by the power of imagination, as it essentially synthesizes under the rule of the understanding in as much as the unity of the a priori forms of intuition are the effect of the understanding.

While the synthesis of recognition is presented as the last step in the three-fold synthesis, it is at the same time the “transcendental principle of all the manifold of our representations (thus also in intuition).”³⁵² In its function as first principle, the synthesis of recognition precedes the first synopsis of apprehension. This means, however, that the manifold of intuition, even in its pure and a priori form, is always already pre-shaped by the understanding. Sensibility’s skill for ordering and arranging the manifold of sensation according to its a priori forms of intuition is thus in fact preceded by the understanding’s act of ordering and arranging the a priori forms of intuition. It is thus the understanding’s prefiguration of the forms of intuition that makes the forms of intuition capable of ordering and placing the matter of intuition to begin with. This means that while the understanding is indeed dependent on intuition for objects to be given to it, in the *Critique of Pure Reason* Kant ultimately holds that only that which is thinkable by the understanding and its concepts can be given in intuition.³⁵³ How, then, can Kant say that we can apprehend one

³⁵¹ CPR A105.

³⁵² CPR A116.

³⁵³ This point thoroughly troubles Kant’s aim of critically restricting reason’s (ab)use of logic as an instrument by means of the canon. Looking in detail into the workings of synthesis has revealed that what appeared to be two independent sources of cognition – intuition and understanding – now turn out to be

of those unruly things in a manifold of intuition?

The crucial point here is that Kant seems to propose both that unruly things can be given to us, and that a mode of apprehension different to the three-fold synthesis laid out in the *Critique of Pure Reason* is possible. The problem posed by these unruly things thus goes to the heart of the a priori synthesis between intuition and understanding, and, as I will argue in the following, will be the place, in the *Critique of the Power of Judgment*, that Kant designates to the technical. How, then, are unruly things taken up, and what does technics have to do with it?

Despite having no corresponding concept, the strange apprehended “form of a given object in empirical intuition”³⁵⁴ brings about an agreement between the first synthesis of apprehension and the third of “presentation of a concept of the understanding (though which concept be undetermined).”³⁵⁵ This means that, rather than corresponding to any particular concept, the apprehended form of the unruly object corresponds to the form of concepts as such, their conceptuality, so to speak, such that it is in agreement with the faculty of understanding as a whole rather than with any specific concept. This agreement between apprehension and presentation according to indeterminate concepts is significant, since it allows for a judgment to take place despite the lack of any corresponding concept. But if the judgment is not warranted by a determinate concept, allowing the power of judgment to subsume a manifold of intuition under it, what is the ground of this judgment?

Kant tells us that the apprehended form of unruly things, in surprising fashion, effects a certain kind of lucky relation between our cognitive faculties of imagination and understanding. This relation gives rise to a pure a priori pleasure, by which the mind (*Gemüt*) can feel itself.³⁵⁶ We thus learn that reflective judgment allows for the mind to feel itself. But the self in question here is nothing like the selfsameness of the merely logical and numerically singular transcendental unity of the “I” necessary for determining judgments. The feeling of self that we encounter here is instead one in which the *Gemüt* feels itself to be alive, as an embodied being.³⁵⁷ Kant claims that it is this feeling of self

always already in relation to one another. And furthermore, the forms of intuition are always already prefigured by the understanding. Thus, while at the surface Kant critically denies the understanding and its concepts immediate relation to reason’s other in favor of intuition, the understanding and its concepts can now be seen to always already loom behind and be active underneath the forms of intuition.

³⁵⁴ CJ 20:220.

³⁵⁵ CJ 20:221.

³⁵⁶ CJ 20:278.

³⁵⁷ CJ 20:278.

and its accompanying pleasure that provides the ground for reflective judgment. This means, says Kant, that the apprehended form of the unruly thing

is related entirely to the subject, indeed to its feeling of life, under the name of the feeling of pleasure or displeasure, which grounds an entirely special faculty for discriminating and judging that contributes nothing to cognition but only holds the given representation in the subject up to the entire faculty of representation, of which the [*Gemüt*] becomes conscious in the feeling of its state.³⁵⁸

Something remarkable has thus occurred here. Despite the argumentative force of the *Critique of Pure Reason*, we can now see that, first of all, the mind (*Gemüt*) has access to a certain set of things the objectivity of which is not a priori determinable by the *Analytic of Principles*. Furthermore, the apprehension of such unruly things allows for a different access to the self than that provided by transcendental self-consciousness. Secondly, the feeling of self is crucial for another reason, since it is the ground of an “entirely special faculty for discriminating and judging.”³⁵⁹ This means that, despite not being able to make any objective knowledge claims about unruly things, the feeling of life becomes the ground for a judgment nonetheless. The feeling of life allows us to judge the given representation as purposive (*zweckmäßig*) for us, meaning as purposive for our subjective cognitive faculties. What this ultimately means is that, in the absence of concepts of the understanding giving the law to nature, nature “specifies”³⁶⁰ itself.

In its logical coding, species denotes the mediating term between genus and individual, and thus corresponds to the schema, which sits between universal concept and particular object. This means that, in the absence of transcendental laws of the understanding, nature nevertheless “schematizes” or “specifies” itself – it provides its own schema. It forms itself. And when this form is then taken up by the imagination, the imagination finds itself in accord with the understanding. This accord does not take place on the level of concepts, but on the level of the faculties themselves. The unexpected agreement between the faculty of imagination and the understanding reveals a structural adequacy of empirical nature to our cognitive powers. This structural adequacy does not, however, only take place in relation to individual unruly things, which are here judged as beautiful. Kant claims that the judging of unruly things “prepares” the understanding to apply the principle of

³⁵⁸ CJ 5:204.

³⁵⁹ CJ 5:204.

³⁶⁰ CJ 20:215.

purposiveness to nature as a whole. Expounded in detail in the second part of the *Critique of the Power of Judgment*, entitled *Critique of the Teleological Power of Judgment*, Kant writes that “the self-sufficient beauty of nature reveals to us a [technics] of nature [*Technik der Natur*].”³⁶¹ Thus while schematization in the *Critique of Pure Reason* already relied on the technical-practical skill of grasping by hand - a hidden art, the *Critique of the Power of Judgment* now introduces the idea of a technics of nature in order to account for the self-schematization and self-forming of nature.

³⁶¹ CJ 5:246. In Guyer and Matthews’s translation, “*Technik*” is always translated as “technique.”

CHAPTER 3.3 A technics of nature

The term *Technik der Natur* (technics of nature), introduced by Kant in the *Critique of the Power of Judgment*, is a peculiar and idiosyncratic term as the German philosopher Ulrike Santozki points out in her *Die Bedeutung antiker Theorien für die Genese und Systematik von Kants Philosophie*. Developed from the ancient Greek τέχνη φύσεως and the Latin *ars naturae*,³⁶² Seibicke could also find no predecessors in German philosophy for the Kantian concept of a technics of nature. Grammatically speaking, the term technics of nature is a double genitive, a grammatical form often employed by Kant. What this means is that it can be read in a double sense, designating both a nature that proceeds technically and a technics that proceeds naturally. In the following, I propose to proceed systematically, considering not only the composite term, but also the two stems that make up the composite. I will begin my investigation into technics of nature from the perspective of nature, as first put forward in the *Critique of Pure Reason*, before moving on to the term technics, in order to account for the composite: technics of nature.

Nature

The *Critique of Pure Reason* had famously put forward the concept of nature as the sum total of all possible objects of experience. Having been organized in relation to the one numerically identical and transcendental unity of apperception, nature's unity and systematicity was thus claimed to be cognizable entirely a priori.³⁶³ However, as distinct from nature as the sum total of all possible objects of experience, the systematization of actual objects of empirical knowledge seemed to be somewhat of an afterthought, and had to do more with reason's own demand for unconditioned completeness rather than any shortcoming on the side of the unity and systematicity provided by the understanding.³⁶⁴ On the one hand, in the *Critique of Pure Reason* particular laws were presented as flowing unhindered from ever higher and universal laws. On the other hand, however, "empirical laws, as such, can by no means derive their origin from the pure understanding [...]. But all empirical laws are only particular determinations of the pure laws of the understanding, under which and in accordance with whose norm they are first possible, and the

³⁶² Ulrike Santozki, *Die Bedeutung antiker Theorien für die Genese und Systematik von Kants Philosophie*, p.327.

³⁶³ CPR A114.

³⁶⁴ Paul Guyer, 1990. "Reason and Reflective Judgment: Kant on the Significance of Systematicity." In *Noûs*, Vol. 24, No. 1, On the Bicentenary of Immanuel Kant's Critique of Judgment (Mar., 1990), p.21.

appearances assume a lawful form.”³⁶⁵

This means that the *Critique of Pure Reason* ultimately left behind a problematic relation between its universal and particular laws, which it could not overcome. This is because while the universal and necessary formal requirements for any possible object of nature are indeed supplied by the understanding, the particular object itself must in any case always be supplied by actual experience. From the standpoint of the lawful understanding, the particular is then always considered as a source of contingency rather than universality and necessity. The object’s particularity is precisely that which the understanding can under no circumstances anticipate; it will always come as a surprise. The understanding can only anticipate those aspects in the object that the particular shares with the universal, leaving its differences untouched. In the context of the *Critique of the Power of Judgment*, Kant picks up this problem when he writes that “the a priori derivation of the particular laws from the universal, as far as what is contingent in the former is concerned, is impossible through the determination of the concept of the object.”³⁶⁶ Thus, on the one hand, nature is a priori subject to the necessary and universal laws of the understanding, while, however, on the other hand, there is a “contingency of the agreement of nature in its products in accordance with particular laws”³⁶⁷ in determining judgments.

Without mentioning that the problematic supplementary systematization of the contingent empirical objects of experience in order to secure the relation between universal and particular laws of nature had previously been assigned to reason, the *Critique of the Power of Judgment* poses the contingency between universal and particular as a problem of and for the power of judgment itself. In its reflective use, the power of judgment is thus tasked with showing how, and securing that, nature in its particularity, and not only in its universality, is indeed adequate, and, thus, purposive for our cognitive faculties. This is ultimately the function of Kant’s investigation of nature’s unruly things, as well as the idea of a technics of nature. What Kant’s articulation of what the German philosopher Lehmann calls “system-adequacy of the particular”³⁶⁸ entails is thus nothing less than the reduction of the – previously claimed to be sufficient and complete – competence of the understanding “to bring the existence of appearances under rules a priori.”³⁶⁹

³⁶⁵ CPR A128.

³⁶⁶ CJ 5:404.

³⁶⁷ CJ 5:406.

³⁶⁸ Lehmann, G., *Technik der Natur*, p.292.

³⁶⁹ CPR A179/B221.

The *Critique of Pure Reason* claimed to contain all of the constitutive principles for objects of experience. As such it presented itself as fully capable of a priori dictating the universal conditions according to which undetermined appearances could become objects for us. From the point of view of the *Critique of the Power of Judgment*, it now appears that the all powerful constitutive principles of the *Transcendental Analytic* are no longer sufficient by themselves to a priori secure the subsumption of appearances under universal forms. This means that it is not only unruly things that the constitutive principles of the understanding cannot seem to grasp: even when it comes to what were previously believed to be “ruly things,” the understanding now seems to be dependent on something further in order to, in the last step, secure the adequacy of the particular object of nature to our cognitive faculties. The term “nature” in the composite “technics of nature” thus does not refer to the concept of nature in its universality as stipulated by the understanding, but it rather concerns nature in its particularity and actuality, and the problem of its structure-adequacy and purposiveness for our cognitive faculties both when it comes to determining and reflecting judgments. Kant’s aim, then, is to complement the unity of nature, a possibility provided by the constitutive principles of the understanding, with the regulative idea of a technics of nature that provides the systematicity of nature in its actuality.

Technics

Facing the term “nature” in the double genitive stands the complementary term “technics.” As we have already seen that the term nature refers to actual nature’s contingency from the perspective of the understanding and the need to simultaneously secure its system-adequacy by way of the power of judgment, the term technics must also have something to do with systematicity. In the history of philosophy the very relation between technics and system has, however, been notoriously difficult to reconcile. Aristotle famously distinguished his notion of *techne* from the necessity, universality, and thus systematicity of science (*episteme*). According to Aristotle, *techne* is situated between *empeiria* (experience) on the one hand and *episteme* (science) on the other, arising when “[...] from the many cases of thinking in experience a single assumption is formed in connection with similar things.”³⁷⁰ As such, *techne* is differentiated from the systematicity of science in the strict sense, since for Aristotle science deals with what “is of necessity in the unqualified way”³⁷¹ – the eternal. Even though in practice science and *techne* are sometimes used interchangeably,

³⁷⁰ Aristotle, 2004. *The Metaphysics*. Translated by H. Lawson-Tancred. London: Penguin Books, 981a3-5.

³⁷¹ Aristotle, 2004. *The Nicomachean Ethics*. Translated by J.A.K. Thomson. London: Penguin Books. 1139b23.

as, for instance, in the beginning of the *Nicomachean Ethics*, where Aristotle refers to a number of *technai* as sciences,³⁷² theoretically and logically *techne* and science are strictly separated. While *techne* deals with the domain of the variable, science concerns the domain of the invariable and eternal. Aristotle writes: “[there] is a sense in which [techne] and chance operate in the same sphere, as Agathon says: ‘[*Techne*] has a love for chance, and chance for [*techne*].’”³⁷³ In contrast to the eternal, systematic objects of science, which can neither come into existence nor ever cease to be, technical objects belong to the field of contingency and are connected to chance.

We have already seen in the previous chapter that there are two genealogies of technics that Kant draws from. On the one hand there is the Aristotelian notion of *techne*, which also features in the *Critique of the Power of Judgment*, when Kant argues that there exists a fundamental difference between technics and art, understood as generalized skill and ability (*Können*), and knowledge. Art, Kant writes, is “distinguished from a theoretical [skill], as technique [*Technik*] is distinguished from theory (as the art of surveying is distinguished from geometry).”³⁷⁴ At the same time, however, Kant also employs the medieval scholastic notion of *Technologie*. This notion is located within theoretical philosophy as it explicitly refers to the methodological problem of systematization and terminology. As such it explicitly concerns the skill of systematizing. However, the *Architectonic of Pure Reason* also affirms in quasi-Aristotelian fashion, as already pointed out in Chapter 2, that there are two forms of unity with which the system of a science can be built. Architectonic forms of unity, Kant writes, are provided by reason entirely a priori, since reason is itself essentially architectonic: “Human reason is by nature architectonic, i.e., it considers all cognitions as belonging to a possible system.”³⁷⁵ Technical unity, on the other hand, is outlined “empirically, in accordance with aims occurring contingently.”³⁷⁶ Consequently, in the *Critique of Pure Reason* Kant ultimately claimed that science could never “arise technically, from the similarity of the manifold or the contingent use of cognition *in concreto* for all sorts of arbitrary external ends, but arises architectonically, for the sake of its affinity and its derivation from a single supreme and inner end, which first makes possible the whole.”³⁷⁷

³⁷² Aristotle, *The Nicomachean Ethics*, 1094a16.

³⁷³ Aristotle, *The Nicomachean Ethics*, 1140a18-20.

³⁷⁴ CJ 5:303.

³⁷⁵ CPR A474/B502.

³⁷⁶ CPR A833/B861.

³⁷⁷ CPR A833/B861.

However, when it comes to the *Critique of the Power of Judgment*, Kant seems to have distanced himself from the metaphysical distinction between science and technics and the two forms of unity that he held on to in the *Critique of Pure Reason*. Ulrike Santozki points out that technics, as employed in the *Critique of the Power of Judgment* in the term technics of nature, is testimony to the disappearance of Kant's earlier efforts to distinguish between the architectonic and the technical.³⁷⁸ Santozki shows how, instead of speaking of an "architectonic understanding"³⁷⁹ or an "architectonic of an intelligent world-author,"³⁸⁰ Kant could equally have employed the terms technical and technics, as well as that of art. From the *Critique of the Power of Judgment* onwards, Kant consequently employs the terms architectonic and technics interchangeably, as also illustrated by the fact that the "intelligent world-author" is in the same passage also called "the highest artist."³⁸¹ Essentially, then, technics here cannot designate the application of theoretical notions and rules. And neither does technics here designate the contingent counter-part of systematic science. Rather, Kant introduces the idea of a technics of nature to designate the systematic self-specification of nature for the purpose of securing the system-adequacy of nature in its actuality.³⁸²

A hypothetical restriction

There is, however, one important restriction to the idea of a technics of nature. Kant writes:

we shall in the future also use the expression '[technics]' where objects of nature are sometimes merely *judged as if* their possibility were grounded in art, in which cases the judgments are neither theoretical nor practical (in the sense just adduced), since they do not **determine** anything about the constitution of the object nor the way in which to produce it; rather through them nature itself is judged, but merely in accordance with the analogy with an art, and indeed in subjective relation to our cognitive faculty, not in relation to the objects.³⁸³

Thus the idea of a technics of nature can be employed in relation to nature, but it can under no circumstance function as a constitutive principle for the possibility of certain products

³⁷⁸ Ulrike Santozki, *Die Bedeutung antiker Theorien für die Genese und Systematik von Kants Philosophie*, p.320

³⁷⁹ CJ 5:420.

³⁸⁰ CJ 5:438.

³⁸¹ CJ 5:438.

³⁸² CJ 20:215.

³⁸³ CJ 20:200-201.

of nature or nature as a whole. Instead, Kant writes, it is only a means of “elucidation (exposition).”³⁸⁴ Judging nature technically, according to the reflexive principle of a systematic ordering of nature in its particularity (technics of nature), allows us to proceed with the following presupposition: we can reflexively judge nature as if its forms were the purposive product of the representations of a synthetic universal, and thus of God. What this ultimately means is that Kant arrives at the notion of a technics of nature through relativizing our discursive human understanding in contradistinction to the understanding of the Christian God of creation.

Our discursive understanding, as the *Critique of Pure Reason* demonstrated at length, can only go from the universal to the particular, and this is why the contingency of the particular first arises to begin with.³⁸⁵ God’s understanding, however, is claimed to be intuitive rather than discursive, and as such it is essentially independent of the need for both concepts and images.³⁸⁶ Intuitive here means that the Godly understanding can go directly from the intuition of the given whole as a synthetic universal to its particular parts, because God, Kant writes, immediately creates what he intuits. Consequently, God’s representation of the whole contains “no contingency in the combination of the parts.”³⁸⁷ Kant’s proposition is then that the ground of the idea of technics of nature, which aims to secure the systematicity of nature in its actuality, is nothing other than the representation of such a synthetic universal “in accordance with the rule of ends.”³⁸⁸ However, in being derived from a relativization of our understanding in contrast to the intuitive understanding of God, the representation of the synthetic universal is valid only with a hypothetical restriction. This means that we can only judge nature *as if* God had brought forth certain natural products in “analogy with an art,”³⁸⁹ and thus in accordance with ends, the representations of which are synthetic universals and thus systematic wholes, which can then be extended to nature as a whole.

While subject to this important hypothetical injunction, the idea of a technics of nature nevertheless gives us the assurance “that even with regard to its empirical laws nature has observed a certain economy suitable to our power of judgment and a uniformity that we

³⁸⁴ CJ 5:412.

³⁸⁵ CJ 5:407.

³⁸⁶ CJ 5:408.

³⁸⁷ CJ 5:407.

³⁸⁸ CJ 5:379.

³⁸⁹ CJ 20:200-201.

can grasp.”³⁹⁰ And while only designating a regulative ground for our power of judgment, this regulative ground is essentially presupposed in any judgment whatsoever, supplementing the unity of nature in its possibility (provided by the understanding) with that of a systematic technics of nature in its actuality (provided by the power of judgment). What this ultimately means is that without the idea of a technics of nature, the understanding “could not find itself in [nature],”³⁹¹ even when it came to determinate judgments. As such, the regulative idea of a technics of nature performs an essential orienting and grounding function for any judgment whatsoever, in the sense that it fills us with the assurance that we are indeed in the right place, and equipped with the right faculties for grasping nature in both its possibility and actuality.

What the preceding line of argumentation has shown is that Kant introduces the idea of a technics of nature in order to secure nothing less than the possibility of science as a whole. The possibility of science in its systematicity is thus in the end premised on a condition that cannot be objectively secured. The hypothetical restriction of technics of nature as being a regulative idea means that, while we can never be sure that nature has indeed been made “for us,” we must nevertheless proceed as if it was nevertheless the case.³⁹² As such, Kant’s idea of a technics of nature in the end reveals more about us than about nature itself, since it is no one but ourselves who put the idea of technics into nature. “We put, it is said, final causes into things, and do not as it were draw them out of their perception.”³⁹³ There must then, in a way, be two kinds of technics at work in Kant’s argumentation, both a technics of nature in its actuality, which works itself out on the surface, as well as an underlying condition for it. The *Critique of Pure Reason* has already been shown to take recourse to a transcendental technics when it came to securing schematization by way of the hidden art of grasping by hand or the technical part of logic. Does Kant’s claim, that it is ultimately us who put the idea of technics into nature, point to an underlying, transcendental and yet technical condition of our power of judgment?

³⁹⁰ CJ 20:213.

³⁹¹ CJ 5:193.

³⁹² See also H. Blumenberg, 2015. *Schriften zur Technik*. Berlin: Suhrkamp Verlag, p.83.

³⁹³ CJ 20:220fn.

CHAPTER 3.4 Three kinds of technics

The preceding discussion has argued that the idea of a technics of nature, which Kant introduces to overcome the problematic relation between universal and particular laws that would otherwise threaten the possibility of science as a whole, is subject to a hypothetical restriction. This means that we can only reflexively judge nature *as if* there were a technics of nature. It is thus ultimately ourselves who put the idea of finality into things (as in the case with living things) and, by extension, technics into nature as a whole. What, then, is the underlying condition that allows us to judge nature technically?

The first candidate to take into consideration is the aforementioned notion of technical-practical purposiveness. Differentiated from science as a skill and ability (*Können*) as “to be able from to know,”³⁹⁴ this notion of technics is purposive. Purposiveness in its technical instantiation designates the causality of a concept with respect to its object, with the concept functioning as the determining ground for the will to bring about that object.³⁹⁵ It thus designates all kinds of purposive actions where empirical objects are brought forth, as in, for example, the handicrafts, referring thus quite literally, to the application, or rather realization, of a concept of nature by means of technical-practical reason. But, as Lehmann has pointed out, there is a fundamental difference between such an idea of purposive technics and the idea of a technics of nature. A purposive technical-practical act designates a conscious end-realization by means of the will. The idea of a technics of nature, however, merely designates the unconscious presentation, rather than the realization, of ends in nature.³⁹⁶ As such, the two technical instances appear too heterogeneous to justify their analogous use without a third, mediating instance. And, indeed, there is a third concept of technics at work in the *Critique of the Power of Judgment*, which stands in a double analogy with the objective purposiveness of technical-practical acts and the purposiveness that ultimately leads to the idea of a technics of nature. It is third technical instance which, as I will show, functions as the underlying condition of both.

The *Critique of the Power of Judgment*, as stated above, consists of two books. The first book deals with aesthetic judgment, while the second book is termed *Critique of the Teleological Power of Judgment* and deals with the complementary teleological judgment. While the first book shows that self-sufficient beauty “reveals to us a [technics] of nature

³⁹⁴ CJ5:303.

³⁹⁵ CJ 5:220.

³⁹⁶ Lehmann, *Technik der Natur*, p.291.

[*Technik der Natur*],”³⁹⁷ it is only the second book, which deals with natural, living things, and directly engages the idea of a technics of nature. In the second book Kant proposes that upon encountering a natural, living thing, the power of judgment freely apprehends the form of the given object, just like in aesthetic judgment. However, differently to the judgment of beautiful things, which effects an agreement of the faculties rather than any specific concept and intuition, with regards to natural things the power of judgment is said to compare the thing “with reason and its principle of the possibility of a system, [...] if this form is found in the object, the purposiveness is judged objectively and the thing is called a natural end.”³⁹⁸ In employing a systematic idea of reason as a measure (a representation of a synthetic universal) the power of judgment does not lawfully subsume particular cases under determinate rules of the understanding as it does in determining judgments, where the power of judgment is said to work just “like an instrument”³⁹⁹ under the schematized rules of the understanding. Subsequently, the enacted judgment is defined in explicit contradistinction to problems of mechanism, instrumentality and application. In comparing a given empirical thing with “reason and its principle of the possibility of a system,”⁴⁰⁰ the power of judgment is instead defined as a properly technical power. What is technical, according to the *Critique of the Power of Judgment*, is thus neither nature, nor our judgments of it, but rather “the power of judgment, on whose laws they are grounded, and in accordance with it we will also call nature technical.”⁴⁰¹

The search for the underlying condition that allows us to judge nature technically has thus arrived at Kant’s claim for a technical power of judgment, which is termed technical precisely because it measures given things according to reason and its systematic form rather than working under the law of the understanding. In the last step, this technical power of judgment thus leads us back to the question of reason, the discussion of which formed the first part of this chapter. How so? In a problematic sense, the technical power of judgment is free from the mechanical relation to the understanding that it is subjected to in determining judgment. On the other hand, it is not free in the same way as aesthetic judgments are, where “no determinate concept of the object at all is required.”⁴⁰² And yet, no determinate judgment is generated either. Distinct from both determining and aesthetic judgments, the technical power of judgment appears to stand in a problematic relation to

³⁹⁷ CJ 5:246.

³⁹⁸ CJ 20:221.

³⁹⁹ CJ 20:204.

⁴⁰⁰ CJ 20:221.

⁴⁰¹ CJ 20:211.

⁴⁰² CJ 20:221.

reason, since it is both free from prior rule and gives itself a rule, while at the same time referring to a measure derived from reason. In a strange way, then, the technical power of judgment gives itself a rule by comparing natural forms to reason and its systematic form.⁴⁰³

⁴⁰³ Gerhard Lehmann thus argues that the technical power of judgment is technical-practical reason. See Lehmann, *Kant's Nachlasswerk*. p.355.

CHAPTER 3.5 The return of the problem of technics

As I have argued, the *Critique of the Power of Judgment* can both be read as placing technical-practical reason “after” science as a problem of application while, at the same time, technics is also placed “before” science, in the sense that the idea of a technics of nature, put forth by the technical power of judgment, is necessary to secure the possibility of science in the last step. Thus, while the *Groundwork of the Metaphysics of Morals* and the *Critique of Practical Reason* systematically aligned technical-practical reason with empirical philosophy of nature due to which it did not need a critique, I have argued that the *Critique of the Power of Judgment* is the place in which Kant discusses a technical power, the technical power of judgment, as the common denominator for both technical-practical action and the idea of a technics of nature. However, differently to the first part of the *Critique of the Power of Judgment*, which concerns the aesthetic power of judgment, the second critique of what Kant comes to call ‘teleological’ power of judgment “could have always been appended to the theoretical part of philosophy.”⁴⁰⁴ As such, it doesn’t properly belong to the *Critique of the Power of Judgment*. The investigation of this technical/teleological power, Kant reveals, belongs rather to the *Critique of Pure Reason*, with the exact place of insertion remaining unaddressed.

If this situation was not complicated enough already, it is troubled further by the fact that it is only the longer first introduction to the *Critique of the Power of Judgment* that names as technical the power of judgment when it compares particular natural things with the form of a system. The shorter and eventually published introduction, as well as the body of the text of the *Critique of the Power of Judgment*, changes the technical power of judgment into teleological power of judgment, while the term “technics of nature” is retained.

Rather than reading Kant’s change of terminology as a mere problem of presentation, I would like to propose a different reading. My argument is that both Kant’s practical and aesthetic philosophies are testament to the development and dynamic internal to Kant’s thinking of technics, which takes place across both his theoretical, practical and aesthetic philosophy. In the *Critique of the Power of Judgment*, nature in its actuality is called technical even though it is, properly speaking, not, while in the final print version of the *Critique of the Power of Judgment* the technical power of judgment as the properly technical instance is no longer called technical. What is now called “teleological power of

⁴⁰⁴ CPR 5:170.

judgment” does however not belong to the *Critique of the Power of Judgment*, properly speaking, but should have been added to the *Critique of Pure Reason*. And what has already been called technical, is insisted upon again and again by Kant, that it should properly be called technical. Kant’s writings from the *Groundwork of the Metaphysics of Morals* up to the *Critique of the Power of Judgment* thus provide the stage for the strange dance performed in Kant’s thought by technics, at once reduced and pushed back to a problem of mere application of science while at the same time pulled out into the open in order to secure the possibility of science, at once explicitly called into question while at the same time silenced into obscurity.

While both the systematic place and role of the technical power of judgment and the idea of a technics of nature ultimately remains instable from the perspective of the *Critique of the Power of Judgment*, the last, unfinished manuscript that Kant worked on from 1796 until shortly before his death in 1803, entitled *Opus Postumum*, takes as its starting point the transition (*Übergang*) between the metaphysical concept of matter and the physical concept of matter, and thus in effect continues the earlier work, addressed in the *Critique of the Power of Judgment*, of bridging nature in its universality and particularity. As Kant works on this transition he encounter a cascade of problems, which finally lead him back to the critical philosophy that he initially believed to have concluded with the *Critique of the Power of Judgment*.⁴⁰⁵ As he mercilessly turns, at the very end of his life, to rethink the critical project anew, most if not all of the critical terms will be subjected to scrutiny, while technics, and specifically technical-practical reason, will be entrusted with an ever-increasing role within the system. As I will argue in the following, what thus remains in unfinished form as the *Opus Postumum* is nothing less than the outline of what would have become Kant’s philosophy of technics.

⁴⁰⁵ CJ 5:170: “With this I bring my entire critical enterprise to an end.”

CHAPTER 4. TECHNICS IN THE *OPUS POSTUMUM*

The preceding discussion has shown that technics occupied a central yet uneasy place within the *Critique of the Power of Judgment*. This next chapter will move on from the *Critique of the Power of Judgment* to the *Opus Postumum*, the last, unfinished manuscript that Kant worked on from 1796 until 1803, and thus shortly before his death in 1804. While Kant initially intended the *Opus Postumum* to provide the keystone (*Schlussstein*) that would finally bring systematic closure to his doctrinal system, the development of this keystone did not so much as effect the sought after systematic closure as did it lead to the dynamic reworking of the entire system. Little would remain as it was, and, as I will argue in the following, technics finally stepped out into the open and revealed, at last, its systematic role and position in Kant's system of transcendental philosophy.

I will begin this chapter by way of an introduction into the publication history of the *Opus Postumum*, and the role played by Gerhard Lehmann in this context. Lehmann was not only one of the editors of the *Akademie-Ausgabe* of the *Opus Postumum*, but also, in his own philosophical work, specifically focused on the concept of technics in Kant. The chapter will then continue with a discussion of technical-practical reason within the restricted context of the *Opus Postumum*. Technical-practical reason appears substantially for the first time in Fascicle VII, which was written between April and December of 1800 and consists of Kant's writing on self-positing, and thus concerns the way in which the subject makes itself into an object of experience. Outlining the context in which the discussion of technical-practical reason both emerged and developed, I will reconstruct Kant's account of self-positing in order to locate the role and responsibility assigned to technical-practical reason within it. In most cases, Kant argues that self-positing consists of two acts, a first merely logical and analytic act, which is then followed by a second, synthetic act, in which the subject posits itself as an object in space and time. I will argue that these two acts are subject to a transition, according to Kant. And it is in and as this

very transition between the first and second act of self-positing that Kant introduces reason in its two-fold mode as technical-practical reason, and moral practical reason. The second act of self-positing, I argue, is thus determined by reason in its two-fold form, due to which I will argue that the second act of self-positing can take both a moral-practical and technical-practical form. In order to account for the intricacy of Kant's argument about technical-practical self-positing, as the act by which the subject posits itself as an empirical object, it is necessary to outline Kant's renewed engagement with the doctrine of ideas and in specific the idea of world as the subject of cosmology. Following a discussion of the idea of world, knowledge of the world (*Weltkenntnis*), and philosophy in the world-concept, I will show that technical-practical self-positing in the *Opus Postumum* always already takes place within a world, as technical-practical reason brings forth the idea of world for the sake of the second act of self-positing. The world, I will argue, is thus the first and most important product of technical-practical reason, forming at once the domain in which the human, as a technical-practical subject appears to itself, as well as what in another register makes science possible. Cosmology, I will thus argue, becomes cosmo-technics in the *Opus Postumum*.

It is my contention that Kant's recourse to the technical as both technical-practical skill and the methodological systematization of logical and real systems, first encountered in the *Critique of Pure Reason* before being further developed under the name of technics of nature and the technical power of judgment in the *Critique of the Power of Judgment*, is now, in the *Opus Postumum*, subject to explicit and systematic development under the name of technical-practical reason. What in the *Critique of Pure Reason* appeared as the first tentative steps of Kant's engagement with a transcendental technical remedy to reason's abuse of logic as an instrument of expansion, is now explicitly developed under the name of technical-practical reason.

CHAPTER 4.1 Kant's *Opus Postumum* and Gerhard Lehmann

The *Opus Postumum* (*Nachlasswerk*) is a collection of 527 handwritten pages of manuscript that Immanuel Kant worked on primarily between the years 1796 and 1801, with some pages dating back as early as 1786 and some as late as 1803.⁴⁰⁶ The manuscript contains what Kant is reported to have claimed to be his “Hauptwerk” or “Chef d’oeuvre,” encompassing nothing less than the “Schlußstein seines ganzen Lehrgebäudes.”⁴⁰⁷ After Kant’s death in 1804, his executor Ehregott Andreas Christoph Wasianski handed over the unfinished manuscript for inspection to Johann Friedrich Schulz, who concluded that the manuscript was incomplete to the point of making an edition impossible. Subsequently, the manuscript disappeared into relative obscurity for most of the nineteenth century. Due to rumors about Kant’s state of mind towards the end of his life, it slowly became the object of much speculation.

In 1890, the *Preussische Akademie der Wissenschaften* commissioned the philosopher Erich Adickes to edit and prepare Kant’s *Handschriftlicher Nachlass* for publication in the encompassing academy edition of Kant’s work. As part of his research Adickes also inspected the *Opus Postumum*. During a four-week long investigation into the manuscript in 1916, Adickes claimed to have established its chronological, genetic structure. Arguing that the very final Fascicle I was virtually complete by 1801, and thus at a time when Kant had still been in good health, Adickes advised the *Akademie der Wissenschaften* to include the manuscript within its edition. However, due to a change of ownership of the manuscript, a situation arose in which the manuscript was going to be transcribed by a young assistant editor to Artur Buchenau at the publishing house of De Gruyter, with Adickes functioning as mere external editor. The name of the assistant editor was Gerhard Lehmann, a young student of philosophy who would later become known for his contribution to Kantian scholarship, having put forward both important editions of the Kantian text⁴⁰⁸ and insightful Kant commentary. The relation between the editors of the *Opus Postumum* proved, however, to be difficult, and soon deteriorated. Most importantly, Buchenau and Lehmann decided to steer away from Adickes’s editorial principles that had hitherto been applied to all of Kant’s *Handschriftlicher Nachlass*, which also meant that

⁴⁰⁶ The early drafts of the *Opus Postumum* complicate periodization attempts that try to read the *Opus Postumum* as a post-critical text. The extensiveness of the period during which Kant worked on the *Opus Postumum* rather suggests that there is a continuation from the critical philosophy into the *Opus Postumum*.

⁴⁰⁷ Reinhold Bernhard Jachmann, 1804. *Immanuel Kant in Briefen*, Königsberg, p.17. Here Kant describes the *Opus Postumum* as both his most important work and as the keystone to his entire doctrinal system.

⁴⁰⁸ Lehmann edited both volumes of the *Opus Postumum* as well as Kant’s *Lectures* for the academy edition. He is also the editor of the Reclam-edition of the *Critique of the Power of Judgment*.

they did not adopt Adickes's chronology. Adickes himself critiqued the reliability of the transcriptions of the 23-year-old Lehmann, and both accused the other party of having further damaged the reputation of Kant's last work. Thus, in 1926, Adickes finally decided to resign from the project altogether, before passing away in 1928.

Another decade passed before the *Opus Postumum* would finally be published, in 1936 and 1938, with Buchenau and Lehmann functioning as sole editors.⁴⁰⁹ While the conflict between Adickes on the one hand and Buchenau and Lehmann on the other was likely unrelated to political differences, the delay of the publication of the two volumes after Adickes's departure from the project in 1926 stands under a different light. According to biographical details provided by Christian Tilitzki in his *Die Deutsche Universitätsphilosophie in der Weimarer Republik und im Dritten Reich*,⁴¹⁰ the delay of the publication might have been part of a political struggle between Eduard Spranger, the head of the Kant-commission of the *Akademie der Wissenschaften*, and the young Gerhard Lehmann, who increasingly exhibited National Socialist tendencies in both his thought and politics.⁴¹¹

Given that there has been no re-edition of the *Opus Postumum*, readers are up to this day reading Kant's last manuscript through Lehmann and Buchenau's edition.⁴¹² At the same time, however, there is a conspicuous silence around Lehmann within present day scholarship on Kant. It seems that Lehmann came to stand for the last, unfortunate chapter in the long, problematic reception history of Kant's *Opus Postumum*, in which the

⁴⁰⁹ For a full account of the reception history of the *Opus Postumum*, see Eckhart Förster's "Introduction to the *Opus Postumum*" in Immanuel Kant, 1993. *Opus Postumum*. Translated by Eckhart Förster and Michael Rosen. Cambridge: Cambridge University Press.

⁴¹⁰ Christian Tilitzki, 2002. *Die Deutsche Universitätsphilosophie in der Weimarer Republik und im Dritten Reich*, Berlin: Akademie Verlag, p.707.

⁴¹¹ Lehmann's relationship to National Socialism proves to have been multifaceted. In the introduction to *Philosophie im Nationalsozialismus*, Hans Jorg Sandkuhler mentions Lehmann in one sentence, naming him along with Martin Heidegger and Erich Rothacker as NS-ideologues. See Hans Jorg Sandkuhler, 2009. *Philosophie im Nationalsozialismus*. Hamburg: Felix Meiner Verlag, p.18. Apart from Lehmann's 1940 *Der Einfluß des Judentums auf das französische Denken der Gegenwart*, which is an explicitly anti-Semitic philosophical text, his 1943 *Die Deutsche Philosophie der Gegenwart* projects an image of contemporary philosophy as "aktivistisch, realistisch, existenzialistisch – eine Interpretation jenes Daseins im Kriege, das keine Sicherungen kennt als die Kraft der Gemeinschaft und den Willen zum Siege." See Thomas Laugstien, 1990. *Philosophieverhältnisse im deutschen Faschismus*, Hamburg: Argument, p.185.

After 1945, Lehmann's *Der Einfluss des Judentums auf das französische Denken der Gegenwart* and *Die deutsche Philosophie der Gegenwart* were set on the list of censored books in the Soviet Occupation zone, due to their explicit National Socialist content. It would, however, only take until the 1950s for Lehmann to be commissioned by the now restructured and perhaps too hastily de-Nazified *Deutsche Akademie der Wissenschaften* to edit the fourth section of the Kant edition of Kant's lectures. Lehmann thus found himself politically rehabilitated a mere decade after the end of the war, while two of his books were still censored.

⁴¹² Since 2002, the Berlin-Brandenburgische Akademie der Wissenschaften is working on a new edition of the *Opus Postumum*, headed by Eckart Förster. An exact date of the publication has not yet been announced.

publication finally turned out to be a quasi-achievement of National Socialism. This difficult constellation, with the *Opus Postumum* being both published and properly received for the first time during a particularly dark chapter of German history, cannot be undone, and should furthermore not be forgotten. Consequently, it is my stance that to discuss the *Opus Postumum* means to engage, in a critical manner, in the political context of its publication and the writing that resulted from it.⁴¹³

Gerhard Lehmann is important for my project beyond his role as editor of the *Opus Postumum*. Lehmann was without doubt the first thinker who has paid attention to the explicit role that technics played in Kant's philosophy. Lehmann thus argues together with, but substantially earlier than, Seibecke, and against Heidegger, Simondon, and Stiegler, that Kant "knew" something about technics, taking it upon himself write about it. Thus, to perform a reading of the meaning and role of technics in Kantian thought necessarily implies dealing with the difficult contribution to Kantian thought of Gerhard Lehmann.

Regarding Lehmann's explicit writing on Kant and technics, there are two main pieces of writing to take into consideration. The first is a short essay called *Die Technik der Natur* (1938),⁴¹⁴ and the second is Lehmann's habilitation, *Kants Nachlasswerk und die Kritik der Urteilskraft* (1939)⁴¹⁵. In both of these works Lehmann argues for continuity between the *Critique of the Power of Judgment* (1790) and the *Opus Postumum* (1796-1803). He also puts forward a number of claims about the role and meaning of technics in both of these works. When read in relation to each other, Lehmann argues, that these two works reveal Kant's late intention to write yet another critique of reason. Complementing the

⁴¹³ In this respect, it is important to distinguish between, on the one hand, the publication details of the *Opus Postumum*, and, on the other, the writing on the *Opus Postumum* undertaken during that same period, a distinction that finds itself doubled in the difference between Lehmann, the Kant-editor, and Lehmann, the Kant-commentator. Lehmann's philosophical contributions remained inseparably entwined with Kantian philosophy, and in particular with the *Opus Postumum*. His most extensive original work on Kant is without doubt his *Habilitationsschrift* from the year 1939, entitled *Kants Nachlasswerk und die Kritik der Urteilskraft*. See Gerhard Lehmann, 1969. *Kants Nachlasswerk und die Kritik der Urteilskraft*. In *Beiträge zur Geschichte und Interpretation der Philosophie Kants*. Berlin: De Gruyter, p.295-373. It was Lehmann's second attempt at acquiring his habilitation. Following a first attempt in 1934, in which Lehmann tried to put forward nothing less than a sociological foundation for National Socialism under the name "*Masse und Macht*," Lehmann's second habilitation attempt appears at first glance as the less explicitly political of the two pieces of writing. At the same time, the example of Lehmann's *Habilitationsschrift* shows just how difficult it is to read Lehmann the Kant-researcher as distinct from Lehmann the National Socialist thinker, with his most comprehensive piece of writing on Kant falling within the same period in which he tried to transform himself into a National Socialist thinker.

⁴¹⁴ Gerhard Lehmann, 1969. *Die Technik der Natur*. In *Beiträge zur Geschichte und Interpretation der Philosophie Kants*. Berlin: Walter de Gruyter & Co. First published in 1938 in: *Forschungen und Fortschritte*, 14. Jg. Nr. 18, p.212-214.

⁴¹⁵ Gerhard Lehmann, 1969. *Kants Nachlasswerk und die Kritik der Urteilskraft*. In *Beiträge zur Geschichte und Interpretation der Philosophie Kants*. Berlin: De Gruyter, p.295-373.

critique of pure theoretical and pure practical reason, this third “critique of reason,” he argues, would have dealt with none other than technical reason.⁴¹⁶

According to Lehmann, Kant’s thought on technics was non-unified and extended across four domains (*Bereiche*).⁴¹⁷ The first domain, according to Lehmann, concerns the idea of a technics of nature, which was first introduced in the *Critique of the Power of Judgment* before being further explored in the *Opus Postumum*. The second domain is that of technical-practical reason more generally. The third domain is, according to Lehmann, the first to have been investigated exclusively in the *Opus Postumum*. Regarding this domain, Lehmann argues that for the late Kant the world of appearances itself is technical, as it is posited, constructed, and formed by technical acts of the subject. These technical acts are then further said to be the responsibility of the transcendental subject itself, which forms the fourth technical domain in Lehmann’s view. On Lehmann’s account, the *Opus Postumum* thus shows how the transcendental subject itself is technical and engages in the technical act of self-positing.⁴¹⁸

Lehmann’s reading of technics in Kant, and in particular his account of the technical transcendental subject, aimed to show nothing less than that Kant’s technical thought in the *Opus Postumum* extended into the depths of transcendental philosophy. Thus, while Seibicke showed that Kant introduced the shortened and Germanized term *die Technik* into German philosophy and combined the medieval scholastic notion of *Technologie* as systematization with the Aristotelian notion of *techne* as skill and ability, Lehmann further proposes that Kant’s thinking of technics took place at the very heart of transcendental philosophy itself.

The following chapter will work with the 1936 and 1938 *Akademie-Ausgabe* of the *Opus Postumum* edited by Lehmann and Buchenau. I will also refer to some of the philological work that Lehmann undertook as editor of the *Opus Postumum*. And finally, concerning Lehmann’s philosophical work on the *Opus Postumum*, the subsequent chapter will follow a route in which Lehmann plays a multifaceted role. Differently to Lehmann, who focused on the narrow relation between the *Critique of the Power of Judgment* and the *Opus*

⁴¹⁶ Lehmann, *Die Technik der Natur*, p.289

⁴¹⁷ Lehmann, *Die Technik der Natur*, p.293. Lehmann employs the term “technische Regionalität” to designate his outline of technics as a whole, which he then distinguishes into four *Bereiche* (domains, areas, sections). I understand Lehmann’s account of domains to mean that these different occurrences of the technical in Kant’s thought are ultimately connected, in the sense that they form a landscape, a technical region, within the system of transcendental philosophy, even though how exactly is left open,

⁴¹⁸ Lehmann, *Die Technik der Natur*, p.293.

Postumum, my discussion of the role and meaning of technics for Kant's transcendental philosophy has taken a larger frame of reference, as it traces technics from the *Critique of Pure Reason* until the very last *Opus Postumum*. It is my understanding, that Lehmann ultimately underestimated the technical problematic underlying Kant's critical project as a whole. Lehmann presented Kant's occupation with technics as a feature of the 'late Kant', whereby both conceptually and systematically failing to account for the important point that method, has always already designated the technical part of logic for Kant, not only when it comes to the *Opus Postumum*.

Furthermore and regarding the *Opus Postumum*, my reading of self-positing takes the transition between the first and second act of self-positing as its key, meaning that, as the following will show, my reading of technical-practical reason develops from the middle of self-positing. The role of the transition, and the role of reason as both moral-practical and technical-practical reason in this transition, I contend, has been overlooked by Lehmann (and others).

At the same time however, and despite a number of fundamental differences between Lehmann and my own reading of the *Opus Postumum*, I will, in the following, pick up important points from Lehmann. Of particular significance here will be Lehmann's precise reading of the pure forms of intuition as "primitive technical products" of the power of imagination.

CHAPTER 4.2 Technical-practical reason in the *Opus Postumum*

As the previous discussion has shown, in the *Critique of Pure Reason* Kant identified the problematic overstepping of theoretical reason's competences as the essential problematic that his critical method was to overcome. The discussion of this problematic revealed not only that reason uses logic as an instrument to achieve its expansions, but, further, that the two-fold critical remedy of the canon and method laid out by the *Critique of Pure Reason* is at heart a problematically technical remedy, as it relies on the technics of systematization and skill. The peculiarity of the subsequent discussions in both the *Critique of Pure Reason* and the *Critique of the Power of Judgment* was, then, that Kant's discussions of technics took place within his critique of theoretical rather than practical reason, raising a difficult question concerning the place of the technical within Kant's system. This can be seen particularly well in the *Critique of the Power of Judgment*, in which Kant developed the systematic notion of a technics of nature (*Technik der Natur*), which, while performing the difficult task of bridging the abyss between theoretical and practical philosophy, could equally have been "appended to the theoretical part of philosophy."⁴¹⁹

The *Opus Postumum* substantially increases the scope of technics, as well as rearticulating anew its systematic position as internal to theoretical reason. Kant's re-elaboration of the former tripartite distinction of the imperatives of practical reason into the two-fold technical-practical and moral-practical reason, the first of which is said to belong to theoretical philosophy, is thus far from being exhausted by the *Metaphysics of Morals* (1797). Tellingly, reason in its two-fold use features prominently in what has become known as the *Opus Postumum*. The term technical-practical reason occurs as early as in the XIIth Fascicle, dated between February and May 1799:

Hieraus läßt sich auch der absolute Wert der Mathematik in Vergleichung mit der Philosophie in Ansehung des Practischen beurtheilen. Der erstere ist der der technisch//practischen (Geschicklichkeit zu Erfindung der Mittel zu beliebigen Zwecken) der andere der moralisch//practischen Vernunft und ist auf den Endzweck der schlechthin (categorisch) gebietend ist, nämlich in Gesinnungen gebesserte Menschen zu schaffen, gerichtet.⁴²¹

⁴¹⁹ CJ 5:170.

⁴²¹ OP 22:545. "Hereby may be judged the absolute value of mathematics, in comparison with philosophy, with respect to the practical. The former is that of *technical-practical* reason (skill in the discovery of *means* for whatever ends), the latter is *moral-practical* reason and is directed to the *final end*, which is absolutely (categorically) obligatory, namely to create men of improved character [*Gesinnung*]." All translations will in

Here, Kant revisits his critical differentiation between, on the one hand, technical-practical reason and its technical imperatives belonging to the theory of nature, and, on the other hand, moral philosophy with the one categorical imperative proper to moral philosophy. The difference centers, once again, on the nature of the end in question. While technical-practical reason concerns the “Geschicklichkeit zu Erfindung der Mittel zu beliebigen Zwecken,”⁴²² and thus literally the skill to invent the means to any ends whatsoever, moral-practical reason is oriented towards one single and final end, the categorical imperative, which commands categorically. This difference between technical-practical and moral-practical reason is then analogically compared to the relationship between mathematics and philosophy. Analogous to the difference between technical-practical and moral-practical reason, mathematics and philosophy are equally distinguished regarding their ends. While both are sources of a priori cognition, mathematics does not constitute a system as an absolute whole, as a later quotation vividly affirms. Mathematics, and thus indirectly also technical-practical reason, is “ein bloßes Kunstproduct des Rechnens und indirect und nur mittelbar (bedingt) auf Zwecke gerichtet dagegen Philosophie auf absolute Zwecke gerichtet ist [...] und sich nicht mit Wissenschaft (der Mittel zu Zwecken begnügt).”⁴²³

The second occurrence of the adjective ‘technical’ can be found in Fascicle X, dated by Erich Adickes to the period between August 1799 and April 1800. Here, one can find the following, remarkable observation:

Die bewegenden Kräfte der Materie sind also entweder technisch oder bloß mechanisch bewegend.- Die letztere sind 1) physisch/mechanisch und setzen die dynamische Möglichkeit als Maschinen voraus.⁴²⁴

Kant proposes an explicit differentiation between the technical and the mechanical in a similar vein to the *Critique of the Power of Judgment*, where the power of imagination was said to work mechanically under the law of the understanding in determining judgment, and freely under the technical power of judgment. And similarly to how the corresponding notion of a technics of nature was shown to be the underlying condition of possibility for

the following be taken from Rosen and Förster’s partial translation of the Cambridge edition of the *Opus Postumum*.

⁴²² OP 22:545. “The skill in the discovery of *means* for whatever ends.”

⁴²³ OP 21:108.

⁴²⁴ OP 22:399.

the unity of nature prescribed by the mechanism of the understanding, the technical forces of nature are here said to be the condition for the physical/mechanical forces of nature.

Kant's explicit differentiation in the *Opus Postumum* between technical and mechanical moving forces is remarkable, since a large part of the *Opus Postumum* is dedicated to a continual investigation of and struggle with ether, the concept of a primordial and dynamic matter. His aim is to use this universally distributed and all-penetrating matter, referred to under the name of ether, caloric, or world-matter, to account for the fundamental characteristics of material bodies (like cohesion, rigidity, fluidity). Until around April 1799, Kant sought to deduce the elementary system of the moving forces of matter from the table of categories under the presupposition of the dynamical forces of ether. After April 1799, however, Kant can be seen to have changed his approach, as he no longer treats ether as a problem of physical phenomena. Instead, he now ventures to deduce it as a condition of possible experience.⁴²⁵ Ether, Kant now claims, is "wirklich weil der Begriff von ihm (mit den Attributen die wir ihm beylegen) die Gesammtheit der Erfahrung möglich macht nicht als Hypothese für wahrgenommene Objecte um ihre Phänomene zu erklären sondern unmittelbar um die Möglichkeit der Erfahrung selbst zu begründen ist er durch die Vernunft gegeben."⁴²⁶ The whole of possible experience is thus said to rest upon the condition of ether. And it is this very same ether that is called technical by Kant, when he writes "die bewegenden Kräfte der Materie sind also entweder technisch oder blos mechanisch bewegend."⁴²⁷ Ether, Kant thus claims in Fascicle X, is a technical force, and is known to be actual as it makes possible the whole of experience in the mechanical realm.

After ether is identified as a transcendental condition of possibility and called technical, the term technics, in all its grammatical forms, enters Kant's terminological arsenal with increasing frequency. From Fascicle VII onwards, written between April and December 1800, one encounters numerous references to technical-practical reason. The first mention appears in a discussion of God's activity, which is here said to be analogous to our human technical-practical reason: "die Thatigkeit desselben ist nach der Analogie der technisch practischen Vernunft."⁴²⁸ In the following pages, one can then find a number of formal and

⁴²⁵ Compare Eckhart Foerster, *Kant's Selbstsetzungslehre in Kant's Transcendental Deductions*, p.224.

⁴²⁶ OP 22:554. "Ether is actual, because the concept of it (with the attributes we ascribe to it) makes possible the whole of experience; it is given by reason, not as a hypothesis for perceived objects, for the purpose of explaining their phenomena, but rather immediately, in order to found the possibility of experience itself."

⁴²⁷ OP 22:399.

⁴²⁸ OP 22:48. "Its activity is on the analogy with technical practical reason [breaks off]"

anthropological definitions of technical-practical reason. Technical-practical reason, we are told, aims at “die Erkenntnis der Mittel zu allen beliebigen Zwecken,”⁴²⁹ it is “eine Beziehung seines [des Menschen] Willens auf Zwecke welche in Ansehung seiner bedingterweise nöthigend (necessitantia) sind: wenn er dieses oder jenes zu bewirken die Absicht hat so muß er dieses oder jenes Verfahren ausüben.”⁴³⁰ Kant can thus be seen to circle again and again around what has by now become a common refrain, according to which our human will is subject to two kinds of mean-ends relation, one legislated by technical-practical reason, and the other by moral-practical reason.

With the beginning of the very last Fascicle, Fascicle I, written between December 1800 and February 1803, one can see a number of interesting terminological fluctuations. Kant employs the terms *technical-theoretical reason* (*technisch-theoretische Vernunft*)⁴³¹ for the first time on page 19 of Volume 22 of the academy edition, after which he returns to employing the notion of *technical-practical reason* (*technisch-praktisch Vernunft*). A few pages further along, however, he then employs the terms *technical-practical* and *technical-theoretical* in a seemingly undifferentiated manner.⁴³² In total, moral-practical reason is opposed to *technical-practical reason* on 29 occasions in Fascicle I.⁴³³ At the same time, however, the term *theoretical-speculative reason* is employed as moral-practical reason’s counterpart on 24 occasions,⁴³⁴ with five mentions of the simple *speculative reason*,⁴³⁵ two mentions of *technical-theoretical reason*,⁴³⁶ and one mention each of *theoretical-practical reason*⁴³⁷ and *technical-speculative reason*.⁴³⁸ Readers of the *Opus Postumum* thus find themselves in a dilemma. Namely, what kind of reason is Kant talking about here?

The vacillating terminology suggests two interrelated things. Firstly, and most importantly, it should be noted that Fascicle I is witness to an ongoing and substantial discussion of technical-practical reason. Secondly, the terminological variations reveal Kant’s explicit struggle to find the proper nomenclature for something that had seemingly hitherto escaped his systematic grasp. The fact that reason in its totality is here subjected to terminological

⁴²⁹ OP 22:64

⁴³⁰ OP 22:122. “There is in man a principle of technical-practical reason, a relation of will towards purposes, which, with regard to himself, are unconditionally necessitating (necessitantia); if he intends to bring about this or that, then he must use this or that procedure: The imperative is conditional.”

⁴³¹ OP 21:19.

⁴³² OP 21:22.

⁴³³ OP 21:11, 12, 13, 14, 16, 19, 21, 22, 23, 24, 26, 31, 32, 43, 44, 45, 47, 51, 53, 54, 78, 95.

⁴³⁴ OP 21:55, 58, 67, 73, 79, 89, 91, 92, 95, 97, 100, 108, 108, 113, 115, 118, 122, 124, 126, 152.

⁴³⁵ OP 21:69, 77, 96.

⁴³⁶ OP 21:19, 22.

⁴³⁷ OP 21:93.

⁴³⁸ OP 21:130.

variation and experimentation in nomenclature shows that Kant is indeed dealing with a systematic problem that affects reason as a whole, rather than a mere aesthetic struggle for the adequate word for purposiveness not explicitly legislated by morality. That this is indeed a larger structural problem can also be observed in Kant's numerous experimentations with new titles for the manuscript. Importantly here, and as many readers of the *Opus Postumum* have pointed out, the titles sketched out in Fascicle I seem to now have little to nothing to do with the project of a transition from metaphysics to physics, and thus the project that Kant had initially set out on. While the historically first Fascicle IV, written in 1796, begins with the title "Uebergang von den metaph. Anf. Gr. der Naturwissenschaft zur Physik,"⁴³⁹ the titles that one can find in Fascicle I now read as "System der Transcendental//Philosophie in drei Abschnitten,"⁴⁴⁰ or the later "Der höchste Standpunct der Transcendental Philosophie im System der Ideen. Gott die Welt und der seiner Pflicht angemessene Mensch in der Welt."⁴⁴¹ But the title of the work in question is not the only thing that has changed drastically: so has Kant's projected table of contents. Fascicle I presents the following layout:

Titelblatt u Vorrede

Die Welt als Universum

In allen diesen Objecten ein Maximum Idee ergo unicum in allen 3 Fällen

1. Die theoretisch//speculative
2. Die technisch practische
3. Die moralisch practische Vernunft

Aus Anschauungen, Begriffen a priori u Ideen

Die Idee der Freiheit führt durch den categor. Imperativ auf Gott

1. die speculative
2. die practische
3. die technisch//practische
4. die moralisch//practische Vernunft in einem System⁴⁴²

⁴³⁹ OP 21:373. "Transition from the Metaphysical Foundations of Natural Science to Physics"

⁴⁴⁰ OP 21:27. "System of transcendental philosophy in Three Sections."

⁴⁴¹ OP 21:54.

⁴⁴² OP 21:44.

"Titlesheet and Preface

The world as universum

In all these objects, a maximum: idea, *ergo unicum* in all three cases

1. theoretical-speculative [reason]
2. technical-practical [reason]
3. moral practical reason

The new table of contents shows that technical-practical reason is here projected as being given its own explicit treatment in a dedicated chapter, couched between reason in its purely theoretical and moral guises. On one side, Kant places theoretical also called theoretical-speculative reason, concerned with nature as an object of theoretical philosophy, which the *Critique of Pure Reason* (1781/1787) attended to. On the other side, there is moral-practical reason, and thus the subject of the *Groundwork of the Metaphysics of Morals* (1785) and the *Critique of Practical Reason* (1788), the main object of which is freedom as the object of moral philosophy. And in between these two, Kant now places technical-practical reason. Thus, while the *Critique of the Power of Judgment* (1790) had explicitly treated and supposedly secured a bridge between theoretical and practical philosophy by way of the power of judgment, the *Opus Postumum* suggests that Kant deemed it necessary to rethink and extend the problematic of the bridge. Indeed, it appears that his initial transition (*Übergang*) project of the *Opus Postumum*, to which Kant gave the title “Uebergang von den metaph. Anf. Gr. der Naturwissenschaft zur Physik,”⁴⁴³ has not disappeared, but rather diversified and multiplied.

By the time Kant arrives at Fascicle I, he will now speak of four necessary and complementary transitions: “1) Uebergang von den metaphysischen Anf. Gr der N.W. zur Physik. 2) Uebergang von der Physik zur Transc. Philos. 3) Uebergang von der Transc. Phil. zum System zwischen Natur und Freyheit. 4) Beschlus von der allgemeinen Verknüpfung der lebendigen Krafte aller Dinge im Gegenverhältnis Gott und die Welt.”⁴⁴⁴ Within this cascade of necessary transitions and bridges, technical-practical reason, as the following will show, will be charged with the responsibility of providing the necessary transition from transcendental philosophy to the System between nature and freedom. Both nature and freedom, Kant writes a few lines earlier in the same passage, need to be treated theoretically and practically: “Das System der Erkenntnis welches von der Erfahrung (also

From intuitions, *a priori* concepts, and ideas.
 The idea of freedom leads, through the categorical imperative, to God
 1. speculative [reason]
 2. practical [reason]
 3. technical-practical [reason]
 4. moral-practical reason in one system”

⁴⁴³ OP 21:373. “Transition from the Metaphysical Foundations of Natural Science to Physics”

⁴⁴⁴ OP 21:17. “(1) Transition from the metaphysical foundations of natural science to physics. (2) Transition from physics to transcendental philosophy. (3) Transition from transcendental philosophy to the system of nature and freedom. (4) Conclusion. Of the universal connection of the living forces of all things in reciprocal relation: God and the world.”

a priori) dem Formalen nach vorher geht und die Bedingungen der Möglichkeit der Erfahrung überhaupt enthält theilt sich in die zwei Hauptstämme Natur und Freyheit, deren beyde theoretisch und practisch behandelt werden müssen und das Product aus technisch//practischer oder moralisch//practischer Vernunft und ihren Principien (Neigung/Instinct und Sitten/Verstand) hervorgeht.”⁴⁴⁵ Both nature and freedom are to be treated theoretically and practically, and it is technical-practical reason that is to supply this two-fold treatment to nature.

However, the above quotations perform an important, systematic, omission. For did the *Critique of the Power of Judgment* with its idea of a technics of nature and the corresponding technical power of judgment,⁴⁴⁶ not already perform the sought after transition function between nature and freedom, and thus between theoretical and practical reason? As Chapter 3 has shown, the idea of a technics of nature as the product of the technical power of judgment was to reassure us that we are indeed at home in the world, and that we are equipped with the right cognitive resources and faculties in order to cognize it. At the same time, however, the technical power of judgment was said to be technical precisely because it compared a given natural thing with the form of a system, provided by reason, thus opening the question of the role of reason for the technical power of judgment.

With regards to Fascicle I, the technical power of judgment is not mentioned, and now it is explicitly technical-practical reason that is said to be necessary to, as it were, treat nature technically-practically, thereby “completing” theoretical philosophy. This point was, without a doubt, already indicated by the previously mentioned vacillation of terminology from theoretical to speculative, to technical, and as to the practical, which already indicated that there must be a structural affinity between theoretical reason and reason in its technical-practical employment. The question is, then, what exactly technical-practical reason’s contribution to theoretical reason is meant to be.

⁴⁴⁵ OP 21:16. “The system of knowledge which formally (thus *a priori*) precedes experience and contains the conditions of the possibility of experience in general, divides into two main branches: nature and freedom, both of which must be treated theoretically and practically; the product of technical-practical or moral-practical reason and their principles (inclination and morals/instinct-understanding) emerges.”

⁴⁴⁶ CJ 20:243.

On the relation between Fascicles VII and I

I have claimed in the preceding section that a more systematic employment of the term “technical-practical reason” first arises with the second-from-last Fascicle VII, which as a whole is dedicated to Kant’s own discussion of self-positing. However, Kant’s inquiry into technical-practical reason is not limited to Fascicle VII, but continues in the following and final Fascicle I. Self-positing, however, is seen as having already been given its explicit treatment within the context of Fascicle VII. Most, if not all, readings of self-positing in the *Opus Postumum* limit their discussion to Fascicle VII, with occasional references to the preceding Fascicles X and XI, as in work by Eckhart Förster, Dina Emundts, Bryan Hall, and others.⁴⁴⁸ Kant, after all, seems to have started a whole new Fascicle to address the topic of reason and its ideas, in which one further encounters Kant’s extensive experimentation with new titles for his work. This has led many a Kant scholar to argue that Fascicle I might contain sketches for a second, altogether different book. Furthermore, Fascicle I is certainly a difficult piece of writing. Consisting of a mere 155 pages in print while written over the duration of more than two years, the reader is witness to Kant’s slowly growing difficulties, from the fourth Folio onwards, with bringing longer and continuous lines of thought to paper. Towards the last pages, one then encounters a growing number of single words, which seem to have gained the upper hand over the decreasing number of full sentences, as an aging and at times suffering Kant appears on the page. At the same time, however, when Kant does manage to bring his thoughts to paper one encounters a lucid mind, which aims to expand self-positing to reason and its ideas, as well as developing a plan to a full system of, rather than the mere conditions of possibility for, transcendental philosophy.

It is my view that the discussion of Fascicle I, which focuses on reason and its ideas, does not stand in an external relation to Fascicle VII. Consequently, I do not think that it is possible to leave Fascicle I aside in a discussion of self-positing on structural claims. Fascicle VII is organized in eight parts that are entitled *Beilagen* (additions), after which the very last section, which no longer carries the name *Beilage*, carries the simple heading “*Ich bin.*”⁴⁴⁹ This last section consists of Folios 9 and 10, which are generally considered to contain the transition from Fascicle VII to the very last Fascicle I. It hence comes as no

⁴⁴⁸ See Förster, E., 2000. *Kant’s Final Synthesis*, Cambridge: Harvard University Press. Emundts, D., 2004. *Kants Übergangskonzeption im Opus Postumum: zur Rolle des Nachlasswerkes für die Grundlegung der empirischen Physik*. Berlin: Walter de Gruyter. Hall, B., 2015. *The PostCritical Kant: Understanding the critical philosophy through the Opus Postumum*. New York: Routledge, Taylor & Francis Group.

⁴⁴⁹ OP 22:115. “I am.”

surprise that some of the language as well as issues that Kant will discuss in Fascicle I find themselves anticipated on the last pages of Fascicle VII. The same, however, also applies to *Beilage V* of Fascicle VII, which, while placed at the center of Fascicle VII in the academy edition, is in fact written on the back of a letter written by Wasianski to Kant on December 19, 1801, meaning that it falls within the writing period of Fascicle I rather than Fascicle VII, and might have been placed into Fascicle VII by mistake.⁴⁵⁰ While technical-practical reason is mentioned a handful times in Folios 9 and 10, it is in *Beilage V* that one encounters it within increasing frequency, while furthermore, self-positing is discussed from the perspective of technical-practical and moral-practical reason.

It is understandable that one might hesitate to read reason, as the subject of Fascicle I, and self-positing, as the main subject of Fascicle VII, through one another. After all, did Kant's critical philosophy not discuss reason only after the completion of the *Transcendental Analytic*, and in an entirely different section entitled *Transcendental Dialectic*, and did the entire critical project not center on the essential restriction of reason's contribution to cognition? In the *Opus Postumum*, reason now seems to have transgressed its critical limits set by the understanding, as reason comes onto the stage within a discussion of self-positing, and thus within Kant's re-elaboration of self-consciousness and the transcendental apperception. Rather than reading Folio 9 and 10, as well as *Beilage V*, as de facto belonging to Fascicle I rather than VII, the next part of this chapter will read self-positing and reason and thus reading Fascicle VII and I in continuity within one another. I believe this move is warranted by nothing other than technical-practical reason, as its function and role, according to the *Opus Postumum*, is essentially within and for the process of self-positing. What, then, is technical-practical reason's contribution to and place within self-positing?

⁴⁵⁰ AA 12:329-330.

CHAPTER 4.3 Technical-practical reason and the doctrine of self-positing

As noted earlier, Kant's deliberations on technical-practical reason systematically set in with the transition from Fascicle VII to I. The explicit topic of Fascicle VII itself is what has commonly become known as Kant's doctrine of self-positing (*Selbstsetzungslehre*), meaning that Kant's engagement with technical-practical reason emerged within his discussion of self-positing, and thus the process by which the subject makes itself into an object of experience. The following chapter thus essentially consists of a discussion of self-positing. I will show that Kant's own account of self-positing structured self-positing according to two acts. Before moving on to the second act in the following chapter, the present chapter will focus on the first act of self-positing, and more importantly, the transition between the first and second act, as it is in the very transition that reason, as both technical-practical and moral-practical reason, enters the discussion. In order to appreciate the full contribution of technical-practical reason to self-positing, my argument will in the following focus on three points. Firstly, I will present an account of Kant's renewed engagement with the doctrine of ideas at the center of the transition. Secondly, then, I will specifically focus on the idea of world, and Kant's discussion of knowledge of the world (*Weltkenntnis*) and philosophy in the world-concept, both of which will bring us back to essentially methodological questions addressed by the transition. Thirdly, I will show how these transcendental, methodological discussions take on a function previously discussed under the name of transcendental reflection. Following the discussion of these three points, I will then, in the final part, move on to the second step of self-positing, which, I will argue, consists of both moral-practical and technical-practical self-positing.

Erich Adickes, in his *Kant's Opus Postumum dargestellt und beurteilt* (1920), characterized Kant's reflections on positing (*setzen*) as a quasi-response and admission to absolute idealism.⁴⁵¹ Adickes claim is that after students and readers of Kantian philosophy, such as Beck, Reinhold, Abicht, Maimon, and in specific Fichte set out in search of a highest principle of transcendental philosophy – with each of these thinkers aiming to deduce the elements of our faculties from a single unifying and supreme principle – Kant himself, in his last work, embarked on just such a search for a highest principle. Concerning Kant's relation to Fichte, Kant had been an avid reader of Fichte's

⁴⁵¹ Erich Adickes, 1920. *Kants Opus Postumum*. In Kant-Studien. Ergänzungshefte im Auftrag der Kant-Gesellschaft, herausgegeben von H. Vaihinger, M. Frischeisen-Köhler, A. Liebert. Nr. 50. Berlin: Reuther & Reichard, p.668.

early writings, and the two had exchanged letters since 1791.⁴⁵² The 1794 publication of Fichte's *Wissenschaftslehre*, however, caused Kant to publicly distance himself from Fichte, denouncing the *Wissenschaftslehre* as "ein gänzlich unhaltbares System."⁴⁵³ However, while Kant's own explicit engagement with positing in the *Opus Postumum* does indeed begin after the public distancing of Kant from Fichte, with positing first appearing in Fascicle X and XI which were written from 1799 onwards, suggesting that Kant might have written his own doctrine of self-positing with and against Fichte, Eckhart Förster is right to insist that Kant had already engaged with positing as early as in his 1763 *The Only Possible Argument in Support of a Demonstration of the Existence of God*.⁴⁵⁴

It was in this text that Kant first proposed that existence is not a real predicate of a thing and that "the concept of position or positing [*setzen*] is completely simple and identical with the concept of being in general."⁴⁵⁵ Here, Kant differentiates between two modes of position, on the one hand a relative position and on the other an absolute position. In a relative position, a predicate is related to a subject in a judgment via a copula, as in "S is P." In such a judgment, what is posited is a property or predicate of the subject. Consequently, Kant explains, relative positions are identical to "the copulative concept in a judgment,"⁴⁵⁶ in which a thing is predicated as a property to the subject through the copula "is," and thus as belonging to and determining the subject. An absolute or existential position, however, would be formulated as "S is," and as such it is the subject itself, which is posited absolutely, thus indicating that it cannot be considered a predicate or property of anything. Existence, according to Kant, is thus the absolute position of the thing.

Förster further points to the following important note, written between 1788 and 1790 during Kant's ongoing discussions with J.G.C. Kiesewetter:⁴⁵⁷ "I posit my own existence [...] for the sake of empirical consciousness and its possibility [...] myself as a being that exists in a world."⁴⁵⁸ Kant can here be seen to directly refer to the amendment undertaken in the 1787 B-Edition of the *Critique of Pure Reason*, where the representation of myself as a subject of thought ("I think") was shown to be itself dependent on something

⁴⁵² see I.H. Fichte, 1862. *Johann Gottlieb Fichte's Leben und literarischer Briefwechsel*. Leipzig: Brockhaus, p.143-165.

⁴⁵³ Kant 12:371, Briefwechsel Band III (1795-1803).

⁴⁵⁴ Eckhart Förster, 2002. *Kant's Final Synthesis: An Essay on the Opus Postumum*. Cambridge: Harvard University Press, p.77.

⁴⁵⁵ Kant, *The Only Possible Argument in Support of a Demonstration of the Existence of God*, 2:73.

⁴⁵⁶ Kant 2:75.

⁴⁵⁷ Eckhart Förster, 1989. "Kant's *Selbstsetzungslehre*," in *Kant's Transcendental Deductions: the three critiques and the Opus Postumum*, edited by E. Förster. Stanford: Stanford University Press, p.218.

⁴⁵⁸ Kant 18:615, Reflection 6313.

empirical being given to it, since, without this, thought and combination would have nothing to exercise its spontaneity on. Thus, Kant claims, “the proposition ‘I think,’ insofar as it says that **I exist thinking**, is not a merely logical function, but rather determines the subject (which is then at the same time object) in regard to existence.”⁴⁵⁹ This also means that the determination of my consciousness in time thus essentially presupposes that I exist and occupy a position in space, to which other things can, therefore, be external.

However, as Förster showed, how exactly such a position of externality can be thought remained unresolved within the context of the *Critique of Pure Reason*, since space, according to the transcendental idealist point of view, is the mere form of outer intuition, rather than designating something actually “outside” myself. Förster’s point, then, is that, in order to renegotiate the relation between the “I think” of the spontaneous thinking subject and myself as a spatially extended, corporeal and existing being in space, self-positing, as the act by which the subject posits itself in the sense of making itself into an object of experience, needs to address both the problematic of space and my position in it.⁴⁶⁰ Thus, as concerns the relation between the *Opus Postumum* and the *Critique of Pure Reason*, one can broadly say that self-positing deals with the problem of synthesis, the copulative concept in a judgment, and thereby, in a second step, with the relation between the transcendental apperception of the “I think” and the empirical consciousness “I am,” a subject matter which had hitherto been the explicit subject of the *Transcendental Deduction* in the *Critique of Pure Reason*.

Self-positing in the *Opus Postumum*

Kant begins his re-investigation of self-positing within the context of the *Opus Postumum* in Fascicle X, written from August 1799 to April 1800. The first important mention of self-positing states the following: “Daß wir nichts einsehen als was wir selbst machen können. Wir müssen uns aber vorher selbst machen.”⁴⁶¹ This quotation stands in a clear relation to two moments of the *Critique of Pure Reason*. On the one hand, it recalls the B-Edition of the *Transcendental Deduction*, where Kant proposed that “I exist as an intelligence that is merely conscious of its faculty for combination.”⁴⁶² On the other hand, it further refers to Kant’s so-called “Copernican turn,” according to which “we can cognize of things *a priori*

⁴⁵⁹ CPR B429.

⁴⁶⁰ Förster, “Kant’s *Selbstsetzungslehre*,” p.218.

⁴⁶¹ OP 22:353. “That we have insight into nothing except what we can make ourselves. First however, we must make ourselves. Beck’s original representing.”

⁴⁶² CPR B158.

only what we ourselves have put into them [*in sie legen*].”⁴⁶³ Here the *Opus Postumum* thus ultimately does not take a point of view that could not have been found in the *Critique of Pure Reason*. The *Critique of Pure Reason* had already claimed that self-consciousness means being conscious of one’s faculty of combining, and, furthermore, that objects conform to our knowledge rather than the other way around.

The quotation from the *Opus Postumum* does, however, seem to contain an intensification, in the sense that “what I can combine” is reformulated into the more general “what I can make,” and the previous “consciousness is consciousness of my faculty of combination” becomes “consciousness is consciousness of my ability to make myself.” This means that the terminology of *machen* (to make) and *können* (to be able to), and thus one’s acts, skills or abilities, has taken over from the previous focus on combination more broadly that Kant employed throughout the *Critique of Pure Reason*. In the *Opus Postumum*, the conditions of possibility thus appear to have become conditions of what we can make. And in order to be able to delineate that which we “can make,” we first need to “make ourselves,” in the sense of positing oneself as existing. How is it, then, that we “make ourselves”?

There are a multitude of terms employed by Kant that designate the act of positing. Alongside *setzen* (to posit), Kant also employs *machen* (to make), *vorhermachen* (to pre-make), *constituieren* (to constitute), *zum Object machen* (to make into an object), as well as *sein Selbstbewußtsein determinieren* (to determine one’s self-consciousness), and others.⁴⁶⁴ In Fascicle VII Kant offers a systematic breakdown of the different elements and moments that together make up self-positing. Firstly, Kant differentiates between our self-consciousness as *facultas representativa* and “die Bestimmung seiner selbst als Function seiner selbst als *vis representativa*.”⁴⁶⁵ Secondly, in critical fashion he further differentiates between the subject in appearance and the subject as a thing in itself objectively=x. This means that with regards to positing we have to attend to four interconnected, but nonetheless differentiated, elements: firstly the *facultas representativa* (faculty of representation), secondly the *vis representativa* (power of representation), thirdly the subject as appearance, and fourthly the subject as a thing in itself.⁴⁶⁶ These different elements are produced by acts (*Akte*), which in most places are said to be two in number.⁴⁶⁷

⁴⁶³ CPR Bxviii.

⁴⁶⁴ See Gerhard Lehmann, 1969. *Kants Nachlaßwerk und die Kritik der Urteilskraft in Beiträge zur Geschichte und Interpretations der Philosophie Kants*. p.358.

⁴⁶⁵ OP 22:73.

⁴⁶⁶ OP 22:73.

⁴⁶⁷ OP 22:73, 43, 58, 66, 67, 68, 77, 79, 83, 85, 86, 88, 90, 93, 95, 97, 98, 102, 115.

The first act of self-positing

The first act, performed by the faculty of representation, is said to be “die Vorstellung seiner selbst (apperception) wodurch das Subject sich selbst zum Object macht.”⁴⁶⁸ Apperception is said to be originary in two interconnected ways. Firstly, it “entspringt nicht aus einem vorhergehenden Akt.”⁴⁶⁹ Consciousness of myself as an object of thought is thus said to be a spontaneous and originary act which is not triggered or caused by anything preceding it. As such the consciousness of myself as object is not subject to syllogistic reasoning. Similarly to in the *Critique of Pure Reason*, Kant consequently continues to distance himself from the conception of the Cartesian *cogito*. Secondly, this first act of self-positing is said to be an act of self-differentiation, in the sense that the faculty of representation “geht von innen hinaus mit etwas was sie selbst setzt.”⁴⁷⁰

At the same time, however, Kant claims that this first act is merely logical and analytical, rather than synthetic. It is a merely formal undertaking, and as such as yet contains no content or material.⁴⁷¹ That which is posited is “das Formale des Urteilens nach der Regel der Identität.”⁴⁷² Proceeding according to the formal rules of identity and non-contradiction, the first act of self-positing is thus an act of pure and mere thought, which concerns itself with our mode of cognition in general and the object of which is nothing but the faculty of representation itself. Kant’s point here is that the formal conditions of judgment itself, the “subject-copula-predicate” form, are the result of something that is done. They are made possible by an originary act, rather than being “native” or immanent to our faculty of representation as a pre-requisite for judgment. This originary act, in its first moment, is an act of separation and differentiation, in which one reflexively inquires into (*erkunden*) and measures (*ausmessen*) one’s own faculty of representation.⁴⁷³ In so doing, one differentiates oneself into a subject (I, the one who acts) and an object (I, the one who is being inquired into, my faculty of representation). Relating these two purely formal terms to one another is the copula *sum*,⁴⁷⁴ Latin for “I am,” which, equally to myself as predicate, is being pulled out of “I.” The first act of self-positing thus results in

⁴⁶⁸ OP 22:43. “The first act of the faculty of representation (*facultas repraesentativa*) is the representation of oneself (*apperceptio*) through which the subject makes itself into an object (*apperceptio simplex*).”

⁴⁶⁹ OP 22:115. “This act of consciousness (*apperceptio*) does not arise as a consciousness of something preceding.”

⁴⁷⁰ OP 22:73.

⁴⁷¹ OP 22:95.

⁴⁷² OP 22:93.

⁴⁷³ OP 22:67.

⁴⁷⁴ OP 22:79.

the differentiation of myself into a merely formal subject and object, which was already identically contained in the subject, albeit in less distinct form.

This discussion so far coincides with Kant's claims in the *Critique of Pure Reason*, where the transcendental apperception was specified as consciousness "of myself not as I appear to myself, nor as I am in myself, but only that I am. This representation is a thinking, not an intuition."⁴⁷⁵ But the B-Edition of the *Critique of Pure Reason* has also shown that the thought "I am" essentially presupposes something given, since without it there would be nothing to exercise my spontaneous thought upon. And rather than only the apperception of myself as an object of thought, it is this very relation between myself as an object of thought and an object in space and time that is, properly speaking, the problem of self-positing.

The transition between the first and the second act of self-positing

In order to address this relation between myself as an object of thought and an object in space and time, we must move on from the first to the second act of self-positing. While the first act was said to be undertaken by the faculty of representation (*facultas representativa*, *Vorstellungsvermögen*) and carried out by the transcendental apperception, the second act is the doing of the power of representation (*vis representativa*, *Vorstellungskraft*), which is in general charged with the responsibility of synthetically combining intuitions and concepts. It is thus in this second act that the merely logical form of judgment is to be supplied with content (intuition) that will allow the merely logical object that I am to become an object (*Gegenstand*) in the proper sense.

There is, however, a transition between the first and the second act of self-positing, which Kant calls a progression (*Fortschritt*): "Nur dadurch dass das Subject sich selbst Object wird *schreitet* die Apperzeption zur Apprehension und *schreitet* von der Metaphysik zur Transzendentalen Philosophie, vom Analytischen zum Synthetischen a priori."⁴⁷⁶ The progression between the first and the second act of self-positing thus passes from metaphysics to transcendental philosophy, and from analytic to synthetic judgment. How, then, is this transition conceptualized?

⁴⁷⁵ CPR B157.

⁴⁷⁶ OP 22:72. My italicization.

The terms that Kant employs to describe the transition or progression from the first to the second act of self-positing are *schreiten* (to step or progress),⁴⁷⁷ *hervorgehen* (to emerge),⁴⁷⁸ *führen* (to lead),⁴⁷⁹ and *sich reihen* (to follow in a series)⁴⁸⁰. The second act of self-positing is thus said to emerge out of the first, the first is said to “lead to” to the second act, “das logische Bewußtsein führt zum Realen,”⁴⁸¹ *es reiht sich* (constitutes a series).⁴⁸² Thus a second act emerges out of the first act, and this second act must provide the empty and merely logical form of the object I am with content. This means that content (intuition) is yet to be introduced into the equation, and that, in a consecutive moment, these heterogeneous elements of intuitions and concepts are then to be combined and applied to one another.

In the *Critique of Pure Reason*, the mutual preparation and combination of intuitions and concepts was the explicit responsibility of the power of judgment (*Urteilkraft*). When it comes to the *Opus Postumum*, the second act of self-positing is equally said to be the responsibility of the power of judgment (*Urteilkraft*), the forms of which are said to emerge analytically from the faculty of representation, meaning that they are to be pulled out of the faculty of representation in yet another judgment of clarification.⁴⁸³ However, Kant proposes that next to the forms of the power of judgment there is a second element, which equally emerges in the transition from the first to the second act of self-positing. Here Kant introduces a radical difference to the *Critique of Pure Reason*: “Die Prinzipien der Möglichkeit Erfahrung anzustellen liegen identisch im Vorstellungsvermögen überhaupt (facultas repraesentativa) woraus die Formen der Urteilkraft analytisch und die Prinzipien der Vernunft apodiktisch hervorgehen.”⁴⁸⁴ The transition from the first to the second act is thus said to also be the place where the principles of reason apodictically, meaning necessarily, come onto the stage.

Fascicle I repeats that the place of reason and its ideas must be somewhere in the transition between the first and second act of self-positing. Ideas, Kant writes here, come onto the scene “noch vor einer Selbstbestimmung im Raume und der Zeit (obzwar, zum Behuf

⁴⁷⁷ OP 22:72.

⁴⁷⁸ OP 22:91.

⁴⁷⁹ OP 22:96.

⁴⁸⁰ OP 22:82.

⁴⁸¹ OP 22:96. “Logical consciousness to what is real, and progresses from apperception to apprehension and its synthesis of the manifold.”

⁴⁸² OP 22:82.

⁴⁸³ In the Academy Edition of the *Opus Postumum*, the editors mention that “analytically” replaced the initial “synthetically.”

⁴⁸⁴ OP 22:91.

derselben).”⁴⁸⁵ This means that “out of” the purely logical consciousness *I am*, and before any further act of determination of the object that I am as an object of possible experience in time and space, both reason and the power of judgment emerge. And while the *Critique of Pure Reason* claimed that the power of judgment is the responsibility of the *Analytic of Principles*, which famously contains the principles “without which no object can be thought,”⁴⁸⁶ including myself as an object in time and space, it is yet to be seen why reason needs to enter in the transition from the first to the second act of self-positing. All that is known so far is that reason apodictically emerges in the transition between the first and second act of self-positing.

Ideas, ideals, original images

Subsequently, then, reason, within the *Opus Postumum*, is said to “make” ideas, just like the faculty of representation in the first act of self-positing was seen to make itself into a formal object of thought. Ideas, Kant writes, are self-made (*selbstgeschaffen*).⁴⁸⁷ Reason thus comes onto the scene between the first and second act of self-positing explicitly as a source of creation and invention, as the originator of ideas, meaning that ideas originate autonomously and spontaneously within reason, rather than following, as a reaction, from any form of outward affection.⁴⁸⁸ As such, the *Opus Postumum* however deviates further from the path of ideas laid out in the *Critique of Pure Reason*, since there reason was hitherto denied any role as a creative, generative force: in the *Antinomy of Pure Reason* Kant had famously claimed that “reason really cannot generate any concept at all, but can at most only free a concept of the understanding from the unavoidable limitations of possible experience, and thus seek to extend it beyond the boundaries of the empirical, though still in connection with it.”⁴⁸⁹

Thus while in the *Critique of Pure Reason* the understanding is affirmed as a generative faculty, the faculty of reason is at the same time denied a productive function, as ideas themselves are specified as “nothing except categories extended to the unconditioned.”⁴⁹⁰ It is thus in distinction to the *Critique of Pure Reason* when, in the *Opus Postumum*, ideas are now explicitly subject to being made by reason, as they enter the scenario of self-

⁴⁸⁵ OP 21:98.

⁴⁸⁶ CPR A62/B87.

⁴⁸⁷ OP 21:43.

⁴⁸⁸ OP 21:93. See also 21:84: “Transz. Phil. Ist die Selbstschöpfung (Autocratie) der Ideen zu einem vollständigen System der Gegenstände der reinen Vernunft.”

⁴⁸⁹ CPR A409/B435.

⁴⁹⁰ CPR A409/B436.

constitution prior to the second act of self-positing. Since ultimately the horizon of this discussion concerns the role and meaning of technical-practical reason for self-positing, what remains to be shown in the following is whether reason in its entirety is productive of ideas, meaning that technical-practical reason “makes,” or whether this transcendental “making” is restricted to moral-practical reason.

Reason, Kant writes, “geht voran mit der Entwerfung ihrer Formen.”⁴⁹¹ And in the last Fascicle I he repeats that “Ideen gehen vor den Erscheinungen in Raum u. Zeit vorher,”⁴⁹² affirming once again the placement of reason prior to the understanding and any further act of self-determination. At the same time, Kant still holds that, as concepts of reason, ideas are thought-entities, and thus “Gedankenwesen, subjective Producte der eigenen Menschenvernunft, die das Subject auf sich selbst bezieht.”⁴⁹³ Thus, not only do ideas originate within our own human reason, they are, secondly, restricted to the realm of thought (*Gedankenwesen*), and are, thirdly, reflexively directed only towards ourselves. What being directed towards itself means is, that they effectively function as “Gesetze des Denkens die das Subject ihm selbst vorschreibt. Autonomie.”⁴⁹⁴

Ideas thus can still be seen to perform the role of immanent self-legislation. But differently to Kant’s position in the *Critique of Pure Reason*, ideas are here said to organize our system of thought and legislate it prior to having received any content, or object, or even developed full self-consciousness. This means that there must be an essential relation between reason’s ideas and the second act of self-positing, in the sense that reason’s ideas essentially contribute to and work towards the second act of self-positing.

While the *Critique of Pure Reason* had explicated ideas of reason as essentially discursive in nature, meaning that they belong to the conceptual realm, according to the *Opus Postumum* “Ideen sind nicht Begriffe sondern reine Anschauungen nicht discursive sondern intuitive Vorstellungen, denn es ist nur Ein solcher Gegenstand.”⁴⁹⁵ This last point on the status of ideas as intuitions is repeated frequently in slightly different iterations: “Ideen sind a priori durch reine Vernunft geschaffene Bilder (Anschauungen) welche vor der Erkenntnis der Dinge vorher bloß subjective Gedankendinge und die Elemente der

⁴⁹¹ OP 22:15.

⁴⁹² OP 21:88. “Ideas precede appearances in space and time.”

⁴⁹³ OP 21:85-86.

⁴⁹⁴ OP 21:93. “*Ideas* are not mere concepts but laws of thought which the subject prescribes to itself. *Autonomy*.”

⁴⁹⁵ OP 21:79. “Ideas are not concepts, but pure intuitions: not discursive, but intuitive representations, for there is only one such object.”

letzteren vorhergehen. Sie sind die Urbilder (prototypa) [...].”⁴⁹⁶ Thus, while in the *Critique of Pure Reason* Kant positioned his own thinking of ideas somewhere mid-way between Aristotle, who restrained the idea to the empirical, and Plato, who considered the idea to be a form of archetype,⁴⁹⁷ the *Opus Postumum* now suggests that Kant’s conception has moved a considerable step closer to the Platonic archetype, towards what in the *Critique of Pure Reason* and the *Critique of the Power of Judgment* was called an ideal.

In the *Critique of Pure Reason*, an ideal was defined as “the idea not merely *in concreto* but *in individuo*, i.e., as an individual thing which is determinable, or even determined, through the idea alone.”⁴⁹⁸ As such, ideals are archetypes, with the Stoic sage and God functioning as examples.⁴⁹⁹ Ideals also surface in the *Critique of the Power of Judgment*, where they are said to be

the representation of an individual being as adequate to an idea. Hence the archetype of taste, which indeed rests on reason’s indeterminate idea of a maximum, but cannot be represented through concepts, but only in an individual presentation, would better be called the ideal of the beautiful, something that we strive to produce in ourselves even if we are not in possession of it.⁵⁰⁰

As such, in the production of beautiful art, the products of genius are said to be singular examples of the ideal of beauty, and thus to function as exemplary archetypes for further production.

When it comes to the *Opus Postumum*, Kant now claims that ideas are presented in intuition as ideals or *Urbilder* (original images).⁵⁰¹ Each one of these original images is, firstly, numerically singular, “ein jeder dieser Gegenstände ist schlechthin Einer (unicum).”⁵⁰² Secondly, each is a maximum. In continuity with the *Critique of Pure Reason*, Kant proposes that one of reason’s ideas is that of the world, which is a

⁴⁹⁶ OP 21:51. “Ideas are images [*Bilder*] (intuitions), created *a priori* through pure reason, which, [as] merely subjective thought-objects and elements of knowledge precede knowledge of things. They are the archetypes (*prototypa*), by which Spinoza thought all things had to be seen, according to their forms, in God: that is, in what is formal in the elements out of which we make God for ourselves.”

⁴⁹⁷ CPR A313/B370.

⁴⁹⁸ CPR A568/B596.

⁴⁹⁹ CPR A569/B597.

⁵⁰⁰ CJ 5:232.

⁵⁰¹ OP 21:51.

⁵⁰² OP 21:40. “Each of these objects is absolutely one (*unicum*). If there is a *world* in the metaphysical sense then there is only one world; and if there is *man* he is the *ideal*, the *archetype* (*prototypon*), of a man adequate to duty.”

quantitative maximum, while the idea of God is a qualitative maximum.⁵⁰³ Thirdly, both of these ideas are “unendlich; der erste als Größe der Erscheinung im Raum und der Zeit der zweite dem Grad nach (virtualiter).”⁵⁰⁴ This means that the world is the idea of an infinite, singular maximum in the phenomenal realm of space and time, while the idea of God is its noumenal counterpart. Thus, there is, on the one hand, God, who is said to have only rights but no duties and who, as it were, unites all objects of pure reason. On the other hand there is the idea of world, which concerns all empirical objects and effects their unification.

While the concept of ether does surface occasionally during the very last Fascicle I, Eckhart Förster is thus in an important manner right to point out that the idea of world must essentially be understood as “the successor to the ether conception of the earlier fascicles.”⁵⁰⁵ Similarly to how Kant had arrived at a conception of ether “given by reason, not as a hypothesis for perceived objects, for the purpose of *explaining* their phenomena, but rather immediately, in order to found the possibility of experience itself,”⁵⁰⁶ the idea of world (and all self-made ideas in general) are explicitly said to not be “hypothetisch (problematisch oder assertorisch) sondern apodictisch indem sie [reason/*Vernunft*] sich selbst schafft.”⁵⁰⁷ Thus, in as much as all objects are intuited within the absolute whole called God, Kant asserts that “ebenso können wir sagen sie [alle Gegenstände] müssen ihrer Realität nach in der Welt angetroffen werden.”⁵⁰⁸ This is the case because the essential difference between the objects intuited in God and the objects intuited in world does not lie within the objects themselves, but is rather to be located “in der Verschiedenheit des Verhältnisses wie das den Sinnengegenstand apprehendierende Subject zur Bewirkung der Vorstellung in ihm afficirt wird.”⁵⁰⁹

⁵⁰³ OP 21:11. “Both are a maximum: the one determined according to degree (qualitative), the other according to volume [or] space (quantitative); the one as object of pure reason, the other as sense object. Both are infinite: the first as magnitude of appearance in space and time; the second according to degree (*virtualiter*), as limitless activity with regard to forces (mathematical or dynamic magnitudes of sense objects). One as *thing in itself* or *appearance*.”

⁵⁰⁴ OP 21:11.

⁵⁰⁵ Förster, *Kant's Final Synthesis*, p.162.

⁵⁰⁶ OP 22:554. “It is given by reason, not as a hypothesis for perceived bodies, for the purpose of explaining their phenomena, but rather, immediately, in order to found the possibility of experience itself.” Kant then goes on to explain the unique and singular proof of the existence of ether.

⁵⁰⁷ OP 21:93.

⁵⁰⁸ OP 21:43.

⁵⁰⁹ OP 22:43. “This difference does not lie in the objects, but merely in the difference of the relation in which the subject apprehending the sense object is affected for the production of the representation in itself.”

God, the world, and the human

Complementing reason's original images of God and the world Kant places a copula, meaning a further mediating concept capable of reconciling the heterogeneous wholes of God and the world. Consequently, it becomes clear that reason's self-made ideas are internally differentiated, in the sense that they are characterized by uneven relations to one another:

Gott u die Welt sind beide Objecte der Transc. Phil und (Subject, Praed u copula) ist der denkende Mensch. Das Subject der sie in einem Satze verbindet. – Dieses sind logische Verhältnisse in einem Satze nicht die Existenz der Objecte betreffend sondern blos das Formale der Verhältnisse diese Objecte zur Synthetischen Einheit zu bringen Gott, die Welt, und Ich der Mensch ein Weltwesen selbst, beide verbindend.⁵¹⁰

Gott, die Welt, und der Mensch als Person d.i. als Wesen das diese Begriffe vereinigt.⁵¹¹

Gott, die Welt und was beide zu einem System vereinigt das denkende einwohnende Prinzip des Menschen (mens) in der Welt.⁵¹²

Concerning the doctrine of ideas, there is, then, another fundamental change undertaken in the *Opus Postumum*, since complementing God and the world, the *Critique of Pure Reason* had hitherto placed the soul. Now, however, the ideas of God and the world are both complemented as well as combined by the idea of the human.

Looking back to the *Critique of Pure Reason*, Kant had argued that ideas “are not arbitrarily invented, but given as problems by the nature of reason itself, and hence they relate necessarily to the entire use of the understanding.”⁵¹³ These problems were then said to be three-fold in nature, meaning that there are three different classes of ideas, which are derived from the three categories of relation when extended to the unconditioned. The first

⁵¹⁰ OP 21:37. “God and the world are two objects of transcendental philosophy; thinking *man* is the subject, predicate and copula. The subject who combines them in one proposition. These are logical relations in a proposition, not dealing with the existence of objects, but merely bringing what is formal in their relations of these objects to synthetic unity: God, the world, and I, a man, a world-being myself, who combines them.”

⁵¹¹ OP 21:29. “*God, the world, and man* as a person: that is, as a being who unites these concepts.”

⁵¹² OP 21:34. “God, the world, and what unites both into a system: the thinking, innate principle of man in the world (*mens*). Man as a being in the world, self-limited through nature and duty.”

⁵¹³ CPR A327/B384.

idea “contains the absolute (unconditioned) unity of the thinking subject, the second the absolute unity of the series of conditions of appearance, the third the absolute unity of the condition of all objects of thought in general.”⁵¹⁴ This means that the first idea contains the relation to the thinking subject, the second to the world as the sum of all appearances, and finally the third to all things in general. From these three classes of ideas, Kant then deduces the three sciences of special metaphysics – rational psychology, cosmology and theology – which are treated in the *Transcendental Dialectic of Pure Reason*. Kant had inherited this three-fold structure of special metaphysics (Rational Psychology, Cosmology and Theology) from Leibniz and Wolff. Rational Psychology was famously given privilege within the overall structure of the *Critique of Pure Reason*, in the sense that the entire *Transcendental Analytic* must be understood as referring to the operations of a transcendental subject, which was restricted and further qualified in the *Transcendental Dialectic*.

When it comes to reason’s ideas within the *Opus Postumum*, Kant carries out a fundamental change to the *metaphysica specialis*. Reason is still said to make three ideas. On the one hand there are still God and the world as the objects of Theology and Cosmology, respectively. The third idea, however, has now become the object of Anthropology rather than Rational Psychology, as it concerns the human, rather than the soul.

The growing importance of anthropology within Kant’s thought had been announced earlier. Kant can famously added a fourth question to what the *Critique of Pure Reason* had articulated as reason’s three-fold interest in his lectures on *Logic* (1800). In addition to *What can I know?*, *What can I do?*, and *What may I hope?*, the *Logic* adds the question of *What is the human?*⁵¹⁵ This fourth question must not be misunderstood as merely an external addition. Rather, the first three questions are said to be related to, and are thus themselves aiming at, the fourth question. In essence, “we could reckon all of this as anthropology, because the first three questions relate to the last one.”⁵¹⁶

This important change to the critical program was first raised by the German philosopher Max Scheler in *Die Stellung des Menschen im Cosmos* (1928), where he argued that every

⁵¹⁴ CPR A334/B391.

⁵¹⁵ Kant, *Jäsche Logik*. AA 9:25. Repeated in a letter of Kant to Carl Friedrich Stäudlin (May 4th 1773), AA 11:574.

⁵¹⁶ Kant 9:25.

speculative philosophy, including the one put forward by Kant, must eventually ask the question concerning the essence of the human. The importance given to anthropology by the late Kant has shaped the course of twentieth century post-Kantian philosophy dramatically, leading to a bifurcation into, on the one hand, a philosophy aiming to found itself on anthropology, and, on the other, a philosophy aiming to overcome this anthropological dimension. However, and as pointed out by Christian Bermes in his *Welt: Vom metaphysischen zum natürlichen Weltbegriff* (2004), one would do well to doubt that Kant had in mind the same notion of anthropology that would later be developed by Scheler, Plessner, Gehlen, or even Heidegger.⁵¹⁷ According to Bermes, what is important is that Kant both introduces and explicates the fourth question within the context of his discussion of philosophy as a world concept (*Weltbegriff*), a point also made by Foucault in his *Introduction to Kant's Anthropology*, which noted that the *Opus Postumum* made clear that “all reflection on man involves reflection on the world.”⁵¹⁸

World and knowledge of the world

As the previous discussion has shown, the world is one of reason's problems addressed in the *Transcendental Dialectic* of the *Critique of Pure Reason*. What this means is that, according to the specification of ideas versus concepts of the understanding, the world cannot be known in the sense of determinately cognized, and the world is also not an ontological presupposition. Instead, the world essentially only exists in thought, as it is to begin with an idea of reason. Reason employs the idea of world to situate appearances, which are under the rule of the categories, in the world, and to connect their conditions to a world. Thus, as Eugen Fink points out in his 1985 *Einleitung in die Philosophie*, after Kant's intervention into cosmology in the *Critique of Pure Reason* the world is no longer a “Seinendes, kein Ding [...], daß jeder Versuch sie dinghaft zu denken [...] die menschliche Vernunft in einen unauflöselichen Widerspruch verwickelt.”⁵¹⁹ As an idea, the world does not exist as a something that can be given, but only as *aufgegeben* (a task). Foucault also noted that in the later *Anthropology from a Pragmatic Point of View*, Kant envisaged the world “more as a republic to be built than a cosmos given in advance.”⁵²⁰

⁵¹⁷ Christian Bermes, 2004. *Welt: Vom metaphysischen natürlichen Weltbegriff*. Hamburg: Felix Meiner Verlag, p.64.

⁵¹⁸ Michel Foucault, 2008. *Introduction to Kant's Anthropology*. Translated by Nigro R., Briggs, K. Los Angeles: Semiotext(e) Foreign Agents Series. p.88

⁵¹⁹ Eugen Fink, 1985. *Einleitung in die Philosophie*. Würzburg: Königshausen u Neumann, p.81.

⁵²⁰ Foucault, *Introduction to Kant's Anthropology*. p.33

It was thus already in the *Critique of Pure Reason* that Kant problematized cosmology by arguing that the world must be taken at once as a problem and a task (*Aufgabe*). Following Kant, Hegel and other German idealists would treat what Kant started under the name of world as a problem of speculation and the system.⁵²¹ Differently to Hegel, for whom the movement of at once the world and reason raised the important question of history, Kant addresses the world by way of two complementary forms of knowledge. On the one hand, the world as a task is the responsibility of scientific knowledge proper. Secondly, however, it is also the responsibility of another form of knowledge that Kant calls *Weltkenntnis* (knowledge of the world), and which is essentially a propaedeutic and pre-scientific *Kennen* (knowledge) of the world.⁵²² This notion of knowledge of the world (*Weltkenntnis*) must not be understood as separating off and treating an altogether different domain of being, but is merely a methodologically and epistemologically different approach to the world than the one provided by science. How, then, is one to imagine this propaedeutic, pre-scientific knowledge of the world?

Kant taught seminars on knowledge of the world (*Weltkenntnis*) throughout his entire career, having on numerous occasions been vocal in underlining the necessity of providing his students with the essential “knowledge of historical matters which could make good their lack of experience.”⁵²³ Initially, these seminars were held under the all-encompassing title of geography. In the year 1765 Kant decided to divide the encompassing seminar on geography into the three disciplines of physical, moral, and political geography. The second, moral part of geography concerned the human, and from 1772 onwards came to form a standalone lecture course on anthropology, before being published in book form in 1798 under the title *Anthropology from a Pragmatic Point of View*. It was not until 1802 that the longer and more encompassing lectures on *Physical Geography* finally followed.⁵²⁴

The introductions to both of these lecture courses provide important insight into the nature of knowledge of the world. There is, Kant writes in the Introduction to *Physical Geography*, “a great need for instruction in how to apply one’s knowledge and make use of it in a manner appropriate to one’s understanding and present situation, or to provide a

⁵²¹ See Eugen Fink, *Einleitung in die Philosophie*. p.81

⁵²² Bermes, *Welt*, p.56.

⁵²³ *Announcement of the Organisation of his Lectures in the Winter Semester 1765-1766*, translated in Caygill, *A Kant Dictionary*, p.214.

⁵²⁴ On the difficulties, and philological shortcomings surrounding the Rink-edition of Kant’s *Physical Geography* see P. Gedan in AA 9.

practical use for one's knowledge. This constitutes knowledge of the world.”⁵²⁵ Knowledge of the world thus addresses the problem of application and use of theoretical knowledge in the world: “The world is the foundation [*Substrat*] and stage [*Schauplatz*] on which our ingenious play [*Spiel unserer Geschicklichkeit*] is performed. It is the ground on which we obtain and apply our knowledge.”⁵²⁶ The world is here explicated as the stage and thus ground for theoretical knowledge, and it is only by being situated in relation to this stage that theoretical knowledge is given both its meaning and purpose.

While itself a natural form of knowledge, pre-scientific and presupposable in every human, the notion of world at work in this form of knowledge is nevertheless itself systematic and architectonic. We have to, Kant writes, “become acquainted with the objects of our experience as a whole. Thereby our knowledge is not an aggregation but a system.”⁵²⁷ As a propaedeutic, the study of anthropology and physical geography thus aims to cultivate the “idea for knowledge of the world. What we are doing here is making an architectonic concept for ourselves, which is a concept whereby the manifold parts are derived from the whole,”⁵²⁸ rather than the whole being assembled from its parts. As such, it anticipates

our future experience in the world, giving us, as it were, a pre-formed conception [*Vorbegriff*] of everything. We say of someone who has travelled widely that he has seen the world. But knowledge of the world is more than merely seeing it. Anyone who wants to derive benefit from a journey must make a plan in advance, and not regard the world merely as an object of the outer sense.⁵²⁹

Knowledge of the world is thus at once a problem of the application of theoretical knowledge, and of the anticipation of experience by means of an architectonic idea of a whole, called the world, in us.

As a system, knowledge of the world is explicitly the combined effort of both physical geography and anthropology, and thus concerns both nature and human beings. “Both parts, however, must be considered *cosmologically*, namely not with regard for a single noteworthy object that they contain (physics and empirical psychology), but rather with regard to the relationship to the whole in which they are found, and within each takes its

⁵²⁵ Kant, *Physical Geography*, 9:157.

⁵²⁶ Ibid., 9:158.

⁵²⁷ Ibid., 9:158.

⁵²⁸ Ibid., 9:158.

⁵²⁹ Ibid., 9:157.

place.”⁵³⁰ It is thus not only that anthropology and geography belong together as sister-disciplines, but moreover that they must themselves be considered cosmologically, and thus in respect to the whole of which they are each a part.⁵³¹ The world is a cosmological whole, “das je schon als spezifische, natürliche Erfahrung erworben ist und in dieser Form auch kultiviert werden kann.”⁵³² Thus, when Kant, in his lectures on logic, adds the fourth question regarding the human to the hitherto three-fold program of critical philosophy, he cannot be said to reduce critical philosophy to the human. He rather grounds and relates critical philosophy with a larger notion of the world, of which both geography and anthropology are a part.⁵³³ Kant’s point, then, is that the three questions of critical philosophy need to be addressed not only regarding philosophy in the scholastic sense, but also, and most importantly, with regard to their “stage,” meaning the world.

Philosophy in the world concept

In 1781 the *Critique of Pure Reason* had already between two different kinds of knowledge when it comes to philosophy.⁵³⁴ On the one hand, and until now, Kant writes that “the concept of philosophy has been only a scholastic concept [*Schulbegriff*], namely that of a system of cognition that is sought only as a science without having as its end anything more than the systematic unity of this knowledge, thus the logical perfection of cognition.”⁵³⁵ Distinct from this scholastic concept, Kant speaks of “philosophy *in sensu cosmico*,”⁵³⁶ philosophy in the world concept, which Alfredo Ferrarin also calls cosmic philosophy.⁵³⁷ What ultimately differentiates the two kinds of philosophy from one another is their form of presentation and their end, meaning that their difference is once again of a methodological nature rather than a difference of domain. Kant’s critique of scholastic philosophy argues that it is neither grounded on nor concerned with the horizon of its application, meaning its end. It is a practice of philosophy “that is sought only as a science without having as its end anything more than the systematic unity of this knowledge, thus

⁵³⁰ Kant 2:443

⁵³¹ This point on the entwined relation between the two disciplines is also repeated by Kant in *Physical Geography*, 9:157. The inner relation of anthropology to geography must also have escaped Heidegger, who mainly references Kant’s *Anthropology*, but did not seem to have anything to say about *Geography*.

⁵³² Bermes, *Welt*, p.61.

⁵³³ See Bermes, *Welt*, p.65

⁵³⁴ CPR A838/B866. What is important is that this difference is not a difference in terms of object. The difference between scholastic and cosmopolitan philosophy is essentially a methodological difference, as they concern the same object.

⁵³⁵ CPR A838/B866.

⁵³⁶ Kant, *Lectures on Logic*, 9:24.

⁵³⁷ Alfredo Ferrarin, 2015. *The Powers of Pure Reason; Kant and the Idea of Cosmic Philosophy*. Chicago: The University of Chicago Press.

the logical perfection of cognition.”⁵³⁸ Sought “only as a science,” the practitioner of scholastic philosophy is thus in danger of becoming a *philodox*, who “strives only for speculative knowledge, without looking to see how much the knowledge contributes to the final end of human reason.”⁵³⁹ As a *philodox*, the scholastic philosopher thus cares only about science for the sake of science, and the logical perfection of this science, while remaining unconcerned with the purpose of this knowledge and its orientation within a world.

Philosophy in the world concept, on the other hand, is described as the “science of the relation of all cognition to the essential ends of human reason (*teleologia rationis humanae*).”⁵⁴⁰ There are, then, explicitly *multiple* essential ends that philosophy in the world concept is concerned with.⁵⁴¹ However, these essential ends are themselves specified as means to yet another end, of which there is only one. This final end, Kant writes, is “the entire vocation of human beings, and the philosophy of it is called moral philosophy.”⁵⁴² What this means, then, is that, already in the *Critique of Pure Reason*, what differentiates scholastic philosophy from philosophy according to the world concept is that the latter is concerned with more than the mere logical perfection of the system of cognition for its own sake. It instead aims to situate and generate that system in relation to its stage (*Schauplatz*) – meaning the world – and then, finally, to do the same for the relation of this world as a system of essential ends to the final end, understood as the vocation of all human beings. It is thus crucial that theoretical philosophy in the world concept, as a system of essential ends, is itself oriented towards the final end, and thus to moral philosophy as the “science of the highest maxim for the use of our reason.”⁵⁴³

God, the world, and the human in the *Opus Postumum*, the system of transcendental philosophy

These architectonic, methodological reflections on world and the different forms of knowledge of the world resurface with renewed urgency within the context of the *Opus Postumum* and more specifically, in relation to self-positing. Reason ‘makes’ its ideas for the sake of the second act of self-positing. To this end, the *Opus Postumum* enacted an

⁵³⁸ CPR A838/B866.

⁵³⁹ Kant, *Lectures on Logic*, 9:24.

⁵⁴⁰ CPR A839/B867.

⁵⁴¹ In the *Critique of Pure Reason* The three questions of speculative and practical philosophy are also specified as: “1. What can I know? 2. What should I do? 3. What may I hope?” CPR A805/B833.

⁵⁴² CPR A840/B868.

⁵⁴³ Kant, *Lectures on Logic*, 9:24.

essential change to the three-fold special metaphysics as Kant replaced Rational Psychology, the science of the soul, with Anthropology, the science of the human. The preceding discussion has now shown how the human is however part of a complex cluster of systematic discussions, as anthropology forms one part of what Kant calls knowledge of the world (*Weltkenntnis*), which is the necessary supplement to theoretical philosophy if theoretical philosophy aims to achieve more than a mere logical perfection of its system.

In the *Opus Postumum*, the reformulation of Rational Psychology into Anthropology takes place within the discussion of self-positing, which concerns the problematic relation between my transcendental and empirical self-consciousness, and thus describes the process by which the subject “makes” itself.⁵⁴⁴ In a sense, however, the human was already considered from a perspective of self-making in *Anthropology from a Pragmatic Point of View*. While anthropology from the physiological point of view “concerns the investigation of what *nature* makes of the human being,” pragmatic anthropology is there described as “the investigation of what *he* as a free-acting being makes of himself, or can and should make of himself.”⁵⁴⁵

In the *Opus Postumum*, we find in the closing line to a paragraph on self-positing the aforementioned position being reformulated as a question. Only now, it is self-positing, rather than pragmatic anthropology which is to answer the question “Was macht der Mensch aus sich selbst?”⁵⁴⁶ What the human refers to here is here equally to God and the world a mere idea. “Wenn Gott ist so nur einer. Ist eine Welt in metaphysischer bedeutung so ist nur Eine und ist der Mensch so ist es das Ideal Urbild Prototypon Eines der Pflicht adäquaten Menschen.”⁵⁴⁷ From this perspective, then, the human “ist eine bloße Idee der reinen Vernunft der categorische Imperativ bewährt ihm seine Realität und er ist insofern Noumenon.”⁵⁴⁸ This means that the existence of the human, as much as that of the world and God, can neither be affirmed nor denied, as it cannot be determinately answered from within the critical restrictions set by Kant. Analogically to the world, the idea of the human is equally characterized as a task (*aufgegeben*), in the sense that it can never be given but is subject to being brought about.

⁵⁴⁴ OP 21:117. “Philosophie (doctrina sapientia) ist nicht eine KUnst von dem was aus dem Mensch zu machen ist sondern was era us sich selbst machen soll (sapere aude). Versuche dich deiner eigenen Vernunft zu deinem wahren Zwecke zu bedienen.”

⁵⁴⁵ Kant 7:119.

⁵⁴⁶ OP 21:94. “What does man make out of himself?”

⁵⁴⁷ OP 21:40. “Each of these objects is absolutely one (*unicum*). If *God* is, he is only one. If there is a world in the metaphysical sense then there is only on world; and if there is *man* he is the *ideal*, the archetype (*prototypon*), of a man adequate to duty.”

⁵⁴⁸ OP 21:48.

This very task, however, turns out to be a two-fold undertaking. “Ich der Mensch bin ein Weltwesen und Erscheinung im Raum und der Zeit.”⁵⁴⁹ On the one hand, then, the human is here always already determined by its relationship to the world.⁵⁵⁰ At the same time, however, the *Opus Postumum* also writes, that „Der Mensch ist einerseits ein Weltwesen: andererseits aber der dem Gesetz der Pflicht sich weisende Mensch ein noumenon.“⁵⁵¹ Due to this double determination of the human, a trait familiar to readers of Kant’s critical philosophy, Kant differentiates the idea of the human from that of the other two ideas, and thus, in a sense, elevates and ennobles the idea of the human over and above the other two ideas. Being at once at once in the noumenal and phenomenal realm, the human can take on the function of the copula between the ideas of God and the world, thus mediating, combining, and synthesizing these two heterogeneous ideas. This, the human can however only do, according to the *Opus Postumum*, because the very distinction between God and the world is itself the result of the act of thinking. The human can thus only unify God and the world, because it is itself the originary power from which the distinction itself derives. “Der medius terminus (copula) im Urtheile ist hier das Urtheilende Subject (das denkende Weltwesen, der Mensch, in der Welt.) Subject, Praedicat, Copula.”⁵⁵²

When taken together, the three ideas form a “Gedankensystem,”⁵⁵³ and thus a system of thought rather than nature, a “Wissenschaft der Formen ähnlich unter welchen wenn sie gegeben werden sollten sie allein erscheinen müßten.”⁵⁵⁴ Ultimately, this science of forms is nothing other than the system of transcendental philosophy that Kant had announced as early as the *Critique of Pure Reason*, where he had distinguished its propaedeutic critical project from the actual system of transcendental philosophy. While the *Critique of Pure Reason* self-reflexively announced itself as the “science of the mere estimation of pure reason, of its sources and boundaries, as the propaedeutic to the system of pure reason,”⁵⁵⁵ it also put forward the plan for the entire system of pure reason, understood as “the exhaustive analysis of all of human cognition.”⁵⁵⁶

⁵⁴⁹ OP 21:49.

⁵⁵⁰ Already in relation to the earlier *Anthropology*, Foucault had pointed out that “man is neither a *homo natura*, nor a purely free subject; he is caught by the syntheses already operated by his relationship to the world.” Foucault, *Introduction*. p.54-55

⁵⁵¹ OP 21:61, Man is, on the one hand, a world-being; on the other, however, man devoting himself to the law of duty: a noumenon.“

⁵⁵² OP 21:27 „The *medius terminus* (copula) in judgment is here the judging subject (the thinking world-being, man in the world). Subject, predicate, copula.“

⁵⁵³ OP 21:26. “Not a system of nature but of thought.”

⁵⁵⁴ OP 21:90.

⁵⁵⁵ CPR A11/B25.

⁵⁵⁶ CPR A13/B27.

However, while already announced in the *Critique of Pure Reason*, it is the *Opus Postumum* that now finally ventures to lay open and unfold the system of philosophy. Transcendental philosophy, Fascicle I tells us, is “eine Wissenschaft welche (objectiv) Grundsätze über Objekte sondern über das Subject der Erkenntnis desselben Umfang und Grenzen seines Wissens vorträgt.”⁵⁵⁷ However, it is more than simply the capacity of analytic reflection and self-limitation, and thus the world of analytic consciousness, but, further “ein Vermögen sich selbst synthetisch in seiner durchgängigen Bestimmung als in einem System der Ideen a priori gegeben vorzustellen.”⁵⁵⁸ This means that transcendental philosophy is explicitly articulated as the a priori presentation and constitution of myself as an object in the system of pure reason. Self-positing thus, is the self-constitution of reason to a system according to its ideas. “Transc. Philos. ist die Autonomie der Ideen in so fern sie unabhängig von allem Empirischen ein unbedingtes Ganze ausmachen und die Vernunft sich selbst zu diesem als einem absonderlichen System constituirt.”⁵⁵⁹ And, again, “... das Denken wodurch wir uns die Gegenstände selbst durch synthetische Erkenntnis a priori aus Begriffen selbst machen und der gedachten Gegenstände subjective Selbstschöpfer sind.”⁵⁶⁰ A few pages later Kant repeats that “Transc. Phil. ist das formale Princip sich selbst als Object der Erkenntnis systematisch zu constituieren.”⁵⁶¹ This means that after the first pure logical act of self-positing, in which the subject posits itself as an object of thought, reason constitutes itself as a system of thought “noch vor seiner Selbstbestimmung im Raume u. der Zeit doch zum Behuf derselben.”⁵⁶²

Thus, regarding the preceding question of reason’s contribution to self-positing, it has now become clear that in Fascicle I transcendental philosophy essentially, “becomes,” as it were, the theory of self-positing, as reason posits itself by way of positing its three original and self-made ideas. Furthermore, then, the system of transcendental philosophy, according to its three ideas, provides original images (*Urbild*) for all possible objects of my thought, as the place into which they must be set: “Die Transc: Philosophie geht vor der Behauptung der gedachten Dinge Voraus als ihr Urbild wohin sie gestellt werden

⁵⁵⁷ OP 21:63-64.

⁵⁵⁸ OP 21:75.

⁵⁵⁹ OP 21:79. “(Transcendental philosophy is the autonomy of ideas, insofar as they form, independently of everything empirical, an unconditional whole, and reason constitutes itself to the latter as a separate system.) God, world, and the concept of the freedom of rational beings in the world.”

⁵⁶⁰ OP 21:21. “... both together in one system, however, and related to each other under one principle, [are] not substances outside my thought, but rather, [they are] the thought through which we ourselves make these objects (through synthetic *a priori* cognitions from concepts) and, subjectively, are self-creators of the objects thought.”

⁵⁶¹ OP 21:97.

⁵⁶² OP 21:98.

müssen.”⁵⁶³ Reason’s ideas thus are needed at this point and before any further act of positing, because, as Förster points out, “without reason’s ideal of a world, there would not even arise the notion of a sensible outer.”⁵⁶⁴ This means that without such ideas we could not even conceive of the very difference between the inside and the outside, or between the sensible and the intelligible. But how is one to understand this differentiating function that reason has acquired in the *Opus Postumum*, a function that in the *Critique of Pure Reason* was explicated as problem of the concepts of reflection?

Reason, self-positing and transcendental reflection

The B-Edition of the *Critique of Pure Reason* argued that the determination of my consciousness in time essentially presupposes that I exist and occupy a position in space, a position that other things can therefore be external to. In the *Critique of Pure Reason*, however, how exactly such a position of externality is to be thought remained unresolved, since space, according to the transcendental idealist point of view, is the mere form of outer intuition, rather than designating something “outside” myself. Within the *Critique of Pure Reason* the concepts of the inner and outer are, properly speaking, concepts of reflection, the discussion of which is ‘tagged on’ as an appendix as the third and last part of the *Transcendental Analytic*, in a section entitled *On the amphiboly of concepts of reflection*.⁵⁶⁵

Reflection (*Überlegung, reflexio*) here is explicitly not concerned with objects themselves, as it rather concerns the “state of mind [*Zustand des Gemüts*] in which we first prepare ourselves to find out the subjective conditions under which we can arrive at concepts.”⁵⁶⁶ Furthermore, a difference is posited between logical and transcendental reflection. For its part, logical reflection compares concepts, thus establishing their identity and difference from one another. Transcendental reflection, on the other hand, has an altogether different function. Its primary responsibility is to sort any given representation and to distinguish whether it belongs to the faculty of understanding (as an object of thought) or the faculty of sensibility (as an object given in intuition):

⁵⁶³ OP 21:7. “Transcendental philosophy precedes the assertion of things that are thought, as their archetype, [the place] in which they must be set.”

⁵⁶⁴ Förster, *Kant’s Final Synthesis*, p.163.

⁵⁶⁵ The source, exact number and layout of the concepts of reflection is not disclosed in the *Critique of Pure Reason*. Kant merely refers to logicians “*von ehedem*” (formerly), meaning that they had been handed down by tradition. See CPR A266/B322.

⁵⁶⁶ CPR A260/B316.

If it is not the logical forms but the content of concepts that is concerned, i.e., whether the things themselves are identical or different, in agreement or in opposition, etc., the things can have a twofold relation to our power of cognition, namely to sensibility and to understanding, yet it is this place [*Stelle*] **in which** they belong that concerns **how** they ought to belong to each other.⁵⁶⁷

Transcendental reflection thus establishes the relation between given representations by establishing the place (*Stelle*), and thus the faculty, to which each representation belongs. The important point, then, is that any judgment whatsoever essentially requires another judgment, that is, an act of transcendental reflection, in order to establish the “transcendental place”⁵⁶⁸ and thus to distinguish the proper cognitive faculty to which each representation that is to be connected in judgment belongs.⁵⁶⁹

The determination of such a transcendental place is accomplished by the employment of four conceptual couples of reflection: identity and difference, agreement and opposition, the inner and the outer, and matter and form.⁵⁷⁰ Complementing transcendental place as “the position that we assign to a concept either in sensibility or in pure understanding,”⁵⁷¹ Kant further introduces the notion of a transcendental topic: “In the same way, the estimation of this position that pertains to every concept in accordance with the difference in its use, and guidance for determining this place for all concepts in accordance with the rules, would be the transcendental topic.”⁵⁷² The transcendental topic consists of these four conceptual couples of reflection, which “[precede] the concepts of things,”⁵⁷³ since they precede any judgment, be it synthetic or analytic. It is thus by way of transcendental reflection that the transcendental place of any representation must first be determined, from which, in a second step, judgment then becomes possible.

Differently to the *Critique of Pure Reason*, where the discussion of transcendental reflection was added on as an appendix to the *Transcendental Analytic*, I argue that the *Opus Postumum* treats the problematic of transcendental place as a problem of the transition from the first act of self-positing to the second, and thus after positing myself as a thinking thing but before, or, rather, for the purpose of, positing myself as an empirical

⁵⁶⁷ CPR A262/B318.

⁵⁶⁸ CPR A268/B324.

⁵⁶⁹ On aporia of judgment, see Chapter 2

⁵⁷⁰ CPR A261/B317.

⁵⁷¹ CPR A268/B324.

⁵⁷² CPR A268/B324.

⁵⁷³ CPR A269/B325.

object in time and space. In the transition from logical to synthetic self-positing, reason puts forth a system of ideas called Transcendental philosophy, which “geht vor der Behauptung der gedachten Dinge Voraus als ihr Urbild wohin sie gestellt werden müssen.”⁵⁷⁴ I will thus argue that the function of the original image (*Urbild*) put forth by the reason is to establish the (transcendental) position (*die Stelle*) for any particular object of my thought, including that of myself.

While transcendental reflection is not explicitly referred to in the sections in question, I would like to argue that the originary bifurcation, that is, self-positing of reason as a system of ideas (God and the world), performs an analogical, primordial role of orienting reason according to the originary distinction between the sensible (phenomenal) and the intelligible (noumenal) world. For a noumenon, an object of pure understanding capable of being thought but never given, its transcendental place can only be in pure understanding, whereas a phenomenon as an object of sensibility can and must be given as an appearance in sensibility.⁵⁷⁵ It is only by way of establishing this initial distinction by way of two ideals, two proto-intuitive original images (*Urbilder*), that reason can orient itself and anticipate the place for each and every possible object of thought, including that of itself, in order to, then, determine itself as an object in time and space in the second act of self-positing. Out of the first distinction of the totality of beings (*Das All der Wesen*) into God and the world,⁵⁷⁶ forming an initial two-fold transcendental topic, a cascade of further distinctions must then become possible, which in the *Critique of Pure Reason* were specified as the concepts of reflection, consisting of the inner and outer, matter and form, identity and difference, and agreement and opposition. As Förster proposed without however showing how this is to be done, I argue that reason must essentially precede the understanding in the *Opus Postumum*, in a similar way to how in the *Critique of the Power of Judgment*, reflecting judgment preceded determining judgment, because “without its [reason’s] projections thought could not orient itself in the world.”⁵⁷⁷

Technical-practical and moral practical-reason

The preceding discussion has thus shown that in the transition from the first to the second

⁵⁷⁴ OP 21:7. “Transcendental philosophy Transcendental philosophy precedes the assertion of things that are thought, as their archetype, [the place] in which they must be set.”

⁵⁷⁵ Phenomena are “appearances, to the extent as objects they are thought in accordance with the unity of the categories.” CPR A248.

⁵⁷⁶ OP 21:43. Foucault points out that finally, in the *Opus Postumum*, Kant conceded to thinking the absolute from the starting point of man. Foucault, *Introduction*. P.78

⁵⁷⁷ Förster, *Kant’s Final Synthesis*, p.163

act of self-positing, reason makes itself into a system of thought according to three ideas, the human, God, and the world. The resulting system of transcendental philosophy, I have argued, provides a transcendental topic, offering orientation to reason for the sake of a second, synthetic act of self-positing. Without the system of transcendental philosophy thought could never find itself in the world and could also, in a further step, not constitute itself to an empirical object in the world.

The key to this discussion is, then, that the ideas of God and the world are “Ideen der moralisch//practischen und technisch//practischen auf Sinnenvorstellungen gegründeten Vernunft.”⁵⁷⁸ Slightly further on, Kant reformulates this point and articulates it in relation to transcendental philosophy as an act of self-positing: “Transc: Phil. ist der Act des Bewußtseyns dadurch das Subject seiner selbst Urheber wird und dadurch auch von dem ganzen gegenstande der technisch//practischen und moralisch//practischen Vernunft in Einem System in Gott alle Dinge als in Einem System zu ordnen.”⁵⁷⁹ The same point was first announced in Fascicle VII, before surfacing again and being treated in more detail in the very last Fascicle I:

Das Subject bestimmt sich selbst 1) durch technisch//practische 2) durch moralisch//practische Vernunft und ist sich selbst ein Gegenstand von beyden Die Welt und Gott. Das erste im Raum u. der Zeit als Erscheinung. Das zweyte nach Vernunftbegriffen d.i. einem Princip des categorischen Imperativs.⁵⁸⁰

Gott und die Welt. Ein System der Transcendentalphilosophie von Technisch theoretischer und moralisch//practischer Vernunft.⁵⁸¹

Gott u die Welt. Jede ein der Qualität besonderes Ganze. Einzeln und in Verbindung. Technisch//practische und moralisch//practische Vernunft. Jedes ein Ganzes und beide zusammen in Verbindung (das All der Objecte u des Subjects).⁵⁸²

⁵⁷⁸ OP 21:21. “God and the world are ideas of moral-practical and technical-practical reason, founded on sensible representation; the former contains the predicate of personality, the latter that of [...]”

⁵⁷⁹ OP 21:78. “Transcendental philosophy Transcendental philosophy is the act of consciousness whereby the subject becomes the originator of itself and, thereby, also of the whole object of technical-practical and moral-practical reason in one system – ordering all things in God, as in one system.”

⁵⁸⁰ OP 22:53. “The subject determines itself (1) by technical-practical reason, (2) by moral-practical reason, and is itself an object of both. The world and God. The first is appearance in space and time. The second according to concepts of reason, that is, a principle of the categorical imperative.”

⁵⁸¹ OP 21:19. “God and the world. A system of transcendental philosophy transcendental philosophy, of technical-theoretical and moral-practical reason.”

⁵⁸² OP 22:64.

At the very beginning of this chapter I showed that the dynamic forces of matter, also called ether, were characterized by Kant as technical. Now the archetype (*Urbild*) of world, as the successor of ether from Fascicle VII onwards, is explicitly defined as the product of technical-practical reason. Consequently, this means that technical-practical reason does not only allow us to cognize the means necessary for a number of contingent ends and to bring forth objects in accordance with the laws of nature: in the *Opus Postumum* Kant holds that technical-practical reason also has a larger systematizing and orienting function, which together with moral-practical reason forms the absolute systematic whole of transcendental philosophy. Similarly to the role of ether, technical-practical reason is said to anticipate the whole of possible experience in the systematic whole called world. “Der Weltraum wird als eine allgemeine Basis der Körperwelt gedacht,”⁵⁸³ meaning that objects of possible experience, here also already explicitly referred to as bodies, can a priori be given their place and relation to one another in the archetype of the world as a system of ends not legislated by the categorical imperative, as they form, what is essentially, a cosmo-technical system.

While moral-practical reason brings forth and systematizes with the idea of God as “ein Vernunftbegriff der Freyheit in so fern in ihm ein Princip der Verknüpfung des Mannigfaltigen liegt das nur einer Person zukommt,”⁵⁸⁴ technical-practical reason makes the idea of world as “das Ganze aller Gegenstände der Sinnenvorstellung.”⁵⁸⁵ What differentiates these two systematic wholes is that reason, in each of these uses, “makes” and systematizes according to a different set of ends (*Zwecke*). Moral-practical reason is oriented towards and legislates according to one final end, the categorical imperative, while technical-practical reason concerns itself with all ends not legislated by the categorical imperative: “Das eine geht auf Kunst u. Geschicklichkeit (nach beliebigen Zwecken) das andere auf Weisheit auf den Endzweck.”⁵⁸⁶

As such, however, technical-practical reason cannot be equated with Kant’s criticism of scholastic philosophy in the *Critique of Pure Reason*,⁵⁸⁷ since scholastic philosophy is explicitly critiqued for its lack of concern for the foundation of knowledge and the horizon of application of knowledge, as it aims at mere logical perfection of the system of

⁵⁸³ OP 21:4.

⁵⁸⁴ OP 21:24.

⁵⁸⁵ OP 21:13. “... the whole of all objects of sensible representation.”

⁵⁸⁶ OP 21:52. “The one relates to art and skill (for arbitrary ends), the other to wisdom, the final end.”

⁵⁸⁷ As Höffe does: see Ottfried Höffe, 2012. *Kants Kritik der praktischen Vernunft: eine Philosophie der Freiheit*. München: Beck.

philosophy. It is precisely through technical-practical reason's contribution that the place and relations within the whole called world can be established, a reading is further supported by Gerhard Lehmann claim in his *Habilitationsschrift*, according to which "die technisch-praktische Vernunft eben diesen Weltbezug des theoretischen Naturbezugs [bezeichnet]."⁵⁸⁸ As such, and most importantly, technical-practical reason ensures the world relation of theoretical reason and its cognitions, meaning that, without technical-practical reason's cosmo-technical contribution, theoretical cognition would be in danger of remaining unconcerned with the purpose and end of its cognitions, and thus their orientation, place and application within the world.

As a consequence, however, it is my understanding that both understanding and intuition, meaning the categorical apparatus as well as the forms of intuition, and as such the entire sphere of theoretical philosophy, have been integrated into the technical-practical sphere. Differently, then, to the *Critique of the Power of Judgment*, where the ominous critique of technical power of judgment could have always been systematically added to the theoretical part of philosophy, the *Opus Postumum* now shows how any system of thought, including that of the theory of nature, is made possible by and sets off in the world.

The preceding discussion of the role and contribution of technical-practical reason to self-positing has indeed painted a remarkable picture. Firstly, self-positing was reformulated as reason's self-constitution as a system of thought. This self-constitution begins by distinguishing itself, in an originary act of thought, into technical-practical and moral-practical reason, that is, the world and God, which together make up the system of thought. Only this way can the transcendental place for any representation be a priori established, including that of myself, as at once an object of thought and an empirical object. It is specifically technical-practical reason that 'makes' the world as a cosmo-technical system, and thus the pure formal system of all possible objects that can ever be given to me, including that of myself. What remains to be shown, then, is how the second act of self-positing, as at once technical-practical and moral-practical self-positing, takes off from the system of transcendental philosophy.

⁵⁸⁸ Lehmann, *Kants Nachlasswerk und die Kritik der Urteilskraft*, p.352.

CHAPTER 4.5 Technical-practical self-positing

While it is true, as Lehmann points out, that Kant did not say nearly half as much about technical-practical reason as about moral-practical reason,⁵⁸⁹ the preceding section has shown that the entire discussion of the second act of self-positing in Fascicle VII must be understood as concerning the process by which the subject determines itself as a sensible object amongst other objects in the world, and thus as concerning technical-practical self-positing.⁵⁹⁰ How, then, does technical-practical self-positing look like?

In Fascicle I, Kant offers the following reformulation of the second act of self-positing: “Das denkende Subject schafft sich [...] eine Welt als Gegenstand möglicher Erfahrung im Raum und der Zeit. [...]”⁵⁹¹ World, as the idea of technical-practical reason brought forth as the transition from the first to the second act of self-positing, must thus be subject to further determination, because the subject introduces, in a second step, time and space, and thus the forms of intuition, into the world prepared by technical-practical reason. What is remarkable in this next step is that Kant argues that the act of positing time and space is in fact the act whereby the subject posits itself: “Raum und Zeit in der Anschauung sind nicht Dinge sondern actus der Vorstellungskraft sich selbst zu setzen, wodurch das Subject sich selbst zum Object macht.”⁵⁹² A little further on he repeats that “das Object der reinen Anschauung vermittelt welcher das Subject sich selbst setzt ist unendlich nämlich Raum und Zeit.”⁵⁹³ Gerhard Lehman is thus right to point out that the determination of time and space as forms of self-positing is most certainly the most important development of the *Transcendental Aesthetic* within the *Opus Postumum*.⁵⁹⁴

By characterizing time and space as forms of self-positing, the *Opus Postumum* can say more about the source of the forms of intuition than the *Critique of Pure Reason* had previously conceded. The *Transcendental Aesthetics* famously laid out sensibility and understanding as two heterogeneous stems of cognition with an unknown common root,⁵⁹⁵ propelling many a post-Kantian philosopher to embark on the search for this common root. With the discussion of self-positing the *Opus Postumum*, Kant too now proposes that

⁵⁸⁹ Lehmann, *Kants Nachlasswerk und die Kritik der Urteilkraft*, p.351.

⁵⁹⁰ For an in-depth discussion of moral-practical self-positing, see Förster, *Kant's Final Synthesis*, p.117-147.

⁵⁹¹ OP 21:23.

⁵⁹² OP 22:88. “Space and time in intuition are not things but *acts* of the power of representation positing itself, through which the subject makes itself into an object.”

⁵⁹³ OP 22:96. “The object of pure intuition, by means of which the subject posits itself, is infinite – namely space and time.”

⁵⁹⁴ Lehmann, *Kants Nachlasswerk und die Kritik der Urteilkraft*, p.359.

⁵⁹⁵ CPR A15/B29.

understanding and sensibility are no longer different stems of cognition with an unknown root. Kant can now hold that the two faculties derive from one common and underlying activity, an activity of self-positing, of which they are forms. Both the forms of the understanding and the forms of intuition are here, then, presented as forms of self-consciousness, and thus as complementary and necessary ways by which the subject posits itself.⁵⁹⁶

What is ultimately at stake in positing myself by way of positing time and space is that, according to Kant's transcendental restrictions to knowledge, the forms of intuition are our needed forms of object-receptivity, meaning that only by way of these forms can things be given to us in the form of appearances. The *Critique of Pure Reason* had defined appearances (*Erscheinungen*) as the "undetermined [objects] of an empirical intuition,"⁵⁹⁷ which can be considered concerning both their form and matter. While the matter of appearance is said to "correspond to sensation,"⁵⁹⁸ meaning that it is subject to being empirically given, its form is said to be what "allows the manifold of appearance to be ordered in certain relations."⁵⁹⁹ In order to be able to carry out this function of ordering, the form of appearance can then itself not be given in sensation. Instead, pure space and time, as the form of appearances, are said to "lie ready for the sensations a priori in the mind [*Gemüt*]"⁶⁰⁰ to be activated, so to speak, by sensation.

With the *Opus Postumum*, the forms of intuition are still claimed to be the subject's a priori forms of object-receptivity, and thus the only way in which the subject can be affected by objects. But differently to the *Critique of Pure Reason*, where the source of these a priori forms of intuition was left in enigmatic suspension, the *Opus Postumum* now decisively affirms that the a priori forms of intuition are subject to being made. They are, Kant writes, *selbstgeschaffen* (self-made).⁶⁰¹ And the power that is said to "make" these forms is determined to be the power of imagination: "Raum und Zeit sind Producte (aber primitive Producte) unserer eigenen Einbildungskraft mithin selbstgeschaffene Anschauungen."⁶⁰² Kant will later repeat "die Vorstellung derselben [Raum und Zeit] ist

⁵⁹⁶ See also Frederick Beiser, 2002. *German Idealism: The Struggle against Subjectivism, 1781-1801*. Cambridge: Harvard University Press.

⁵⁹⁷ CPR A20/B34.

⁵⁹⁸ CPR A20/B34.

⁵⁹⁹ CPR A20/B34.

⁶⁰⁰ CPR A20/B34

⁶⁰¹ OP 22:37.

⁶⁰² OP 22:37. "Space and time are products (but primitive products) of our own imagination, hence self-created intuitions, inasmuch as the subject affects itself and is thereby appearance, not thing [*Sache*] in itself."

ein Act des Subjects selbst und ein Product der Einbildungskraft für den Sinn des Subjects,”⁶⁰³ which the later Fascicle VII also calls an “ursprüngliche Akt.”⁶⁰⁴ And it is in the making of these forms, that “[das Subject] sich selbst zum Object konstituiert und dieses sein eigener Gegenstand ist.”⁶⁰⁵ This means that technical-practical self-positing enlists the power of imagination, to “make” the pure forms of time and space as its forms of objectivity.

What “making” these a priori forms means is that they are themselves subject to an a priori synthesis (*Zusammensetzung*). The *Critique of Pure Reason* had claimed that the synthesis of apprehension “must also be exercised *a priori*, i.e., in regard to representations that are not empirical.”⁶⁰⁶ And indeed, by saying that the a priori forms of time and space are posited and brought forth (*selbstgemacht*) by the power of imagination, Kant says as much as that the pure forms of time and space are subject to synthesis. In calling this production an originary act, Kant decisively refers to the productive, rather than the reproductive, power of imagination, and thus pure synthesis. Pure synthesis apprehends and comprehends the pure manifold of space-time itself rather than any given empirical manifold, meaning that pure synthesis deals with our forms of affectability themselves.

But in the *Opus Postumum*, rather than talking about apprehension and comprehension, Kant specifies the work of the productive power of imagination in the act of positing space and time in a wholly other manner. If one searches the *Opus Postumum* for the specific “mode of production” of the forms of intuition by the power of imagination, one finds a number of passages like the following:

Der Verstand fängt nicht vom Object sondern von seinem eigenen Subject an die Sinnenvorstellung ihrer Form nach zu construieren d.i. synthetisch a priori das Mannigfaltige derselben in der Einheit desselben nach einem Prinzip darzustellen welches eine mathematische Operation desselben ist [...] Die unbedingte Einheit des Mannigfaltigen in der Anschauung ist nicht dem Subject von einem anderen Gegenstande gegeben sondern durch dasselbe gedacht. Raum u. Zeit sind nicht als Verstandesbegriffe Anticipationen der Wahrnehmung sondern Formen der Gegenstände in der Erscheinung.⁶⁰⁷

⁶⁰³ OP 22:76. “They [space and time] are only given in the subject, that is, their representation is an act of the subject itself and a product of its imagination.”

⁶⁰⁴ OP 22:16.

⁶⁰⁵ OP 22:74.

⁶⁰⁶ CPR A99.

⁶⁰⁷ OP 22:443-444. “The understanding does not start from the object, but from its own subject, in order to construct the sensible intuition, according to its form; that is, to present the manifold of sensible intuition synthetically *a priori*, in the unity of the manifold, according to a principle – which is a mathematical

As an *a priori* construction, time and space are thus explicitly said to not contain the anticipation of perception, which in the *Critique of Pure Reason* determined that the real of perception can be anticipated according to its degree of intensity alone.⁶⁰⁸ Kant's assertion that the power of imagination synthetically constructs the pure forms of intuition is made not only in Fascicles X and XI, but also appears in the later Fascicle VII, where Kant writes that "das Formale dieser Anschauung ist Eines und Alles zusammengefaßt ist die Vorstellung von Raum und Zeit welche nicht analytisch aus Begriffen sondern synthetisch durch Construction der Begriffe eine Unendlichkeit (unbegrenzte Größe) vorstellt."⁶⁰⁹ As forms of intuition, Kant writes, their representation "ist reine nicht empirische Anschauung welche nicht wie in der Logik vom allgemeinen zum besonderen analytisch sondern synthetisch vom All des Inbegriffs des Mannigfaltigen zum Einzelnen synthetisch sich selbst *a priori* constituirt und bloß das Formale des Mannigfaltigen der Anschauung des Subjects in der Totalität d.i. das Unbedingte Ganze der Anschauung enthält."⁶¹⁰ This means that we construct the pure forms of intuition purposively into the unconditioned whole of intuition as an infinite magnitude.

Furthermore, that which is properly said to carry out this act of construction by means of the power of imagination is technical-practical reason: "Es ist aber ausser der Sinnenvorstellung noch ein Erkenntnisvermögen welches nicht bloß Receptivität sondern auch Spontaneität (als oberes Erkenntnisvermögen) enthält nämlich Verstand, Urtheilskraft und Vernunft und diese kann technisch// Anschauung construierende oder moralisch//practische Vernunft seyn beyde *a priori*."⁶¹¹ This act of *a priori* construction is thus a spontaneous act of technical-practical reason, which enlists the power of imagination to construct itself into an object of intuition within the whole of all

operation of the understanding, and an act of transcendental philosophy: How are synthetic representations *a priori* possible? The representation of *space* and *time*, and their synthetic unity in one space and one time, and the principle of thoroughgoing combination for the sake of the possibility of experience in space and time.

The extraposition is combined with the intusposition of the manifold of intuition as appearance, through a principle of the synthetic unity of *a priori* knowledge – consequently, by transcendental principles. The subject makes itself into an object. The unconditioned unity of the manifold in intuition is not *given* to the subject by another object, but is *thought* through itself. Space and time are not anticipations of perception, as concepts of the understanding, but forms of the objects in appearance."

⁶⁰⁸ CPR A176/B218.

⁶⁰⁹ OP 22:99. "What is formal in this intuition is One and All, coordinated; [it] is the representation of space and time, which represents an infinity (unlimited magnitude), not analytically through concepts, but synthetically through the construction of concepts."

⁶¹⁰ OP 22:69.

⁶¹¹ OP 22:116. "There is, however, apart from sensible representation, yet another faculty of knowledge, which contains not merely receptivity but also spontaneity (as highest faculty of knowledge): namely, understanding, judgment and reason. The latter can be either technical, intuition-constructing reason or moral practical reason, both combining *a priori* the manifold of representations to knowledge under a principle."

appearances. Lehmann is thus right to argue that the entire formal realm of appearances is subsumed under the teleological, technical sphere, since it is, as I have shown, the product of technical-practical reason.⁶¹²

The problem of construction

Kant's determination of the pure forms of intuition as the technical-practical product of intuitive construction brings up a number of problems, some of which threaten to transgress the critical limits that Kant himself has set. As Chapter 2 showed the *Critique of Pure Reason* was organized around the founding methodological distinction between philosophy and mathematics. Mathematics was then said to be able to a priori construct its concepts in intuition, meaning that it could provide an a priori intuition to its concepts through mere a priori presentation (*hypotyposis*, *Darstellung*). Kant's 1790 text *On a discovery whereby any new critique of pure reason is to be made superfluous by an older one*⁶¹³ had defined construction as the "exhibition of a concept through the (spontaneous) production of a corresponding intuition."⁶¹⁴ This general sense of construction was then further distinguished into pure or schematic construction and empirical construction, which was also called technical. While pure construction was specified as occurring "through mere imagination in accordance with an a priori concept," technical construction, which was further differentiated into geometrical and mechanical construction, was said to be "carried out on some kind of material."⁶¹⁵ In the *Critique of Pure Reason* Kant made allowances for mathematics to demonstrate its concepts through schematic construction, since mathematics only deals with concept of magnitude to begin with, which contains "just that which the definition would think through it."⁶¹⁶ As such, the concepts of mathematics can be constructed "*in concreto* and yet a priori."⁶¹⁷ This means that in mathematical construction the validity of a concept can be determinately cognized a priori through a priori intuition alone, and thus without taking recourse to empirical data. If the concept (of construction) were to have any relation to a possible content of intuition whatsoever, meaning if the concept "contain[ed] an existence and correspond[ed] to

⁶¹² Lehmann, *Technik der Natur*, p.293.

⁶¹³ In Immanuel Kant, 2004. *Theoretical Philosophy after 1781*. Translated by G. Hatfield and M. Friedman. Cambridge: Cambridge University Press, p. 271-337, AA 8.

⁶¹⁴ AA 8:192.

⁶¹⁵ AA 8:192.

⁶¹⁶ CPR A729.

⁶¹⁷ Kant, *Prolegomena*, §7.

sensation,”⁶¹⁸ such a priori presentation would be illegitimate, since such content can be given only in empirical actuality and thus a posteriori.

Consequently, in the *Critique of Pure Reason* the difference between mathematics and philosophy is that, distinct from mathematical concepts, philosophical concepts are subject to schematization rather than construction, both of which are types of *hypotyposis* (presentation). Importantly, through schematization the objective validity of concepts can also be given a priori, but only insofar as schematization offers “a general but sufficient characterization of the conditions under which objects in harmony with those concepts can be given.”⁶¹⁹ Philosophical concepts gain their validity in relation to the conditions of possible experience, which extend beyond concepts of magnitude, and due to this Kant vehemently argued against the application of the geometrical-mathematical method in philosophy.⁶²⁰

When it comes to the *Opus Postumum*, this important methodological distinction seems to have been definitively transgressed, as Kant designates the a priori construction of intuition as the technical-practical second act of self-positing. This also means that what was hitherto relegated to technical construction has been elevated into the transcendental, and thus the earlier distinction between schematic and technical construction has been invalidated. The second step of technical-practical self-positing begins with nothing less than the intuitive construction (a priori presentation) of the concept of the subject in intuition. Since these forms of intuition are however spontaneously constructed by the power of imagination, they can only present the infinite magnitude of intuition in concreto and a priori, without any relation to the reality of that which appears in space and time, meaning myself as an object of existence.

At the same time, however, Kant must have deemed it possible to avoid his own critique of Fichte’s purely logical system of thought, which he denounced as incapable of ever relating to any real objects. This means that something more is needed. In *Kant’s Final Synthesis*, Eckhart Förster methodologically follows Kant’s self-description of self-positing as a series,⁶²¹ extending it to mean that self-positing in fact consists of what he

⁶¹⁸ CPR A723/B751.

⁶¹⁹ CPR A136/B175.

⁶²⁰ See Chapter 1 for the discussion on the methodological difference between mathematics and philosophy

⁶²¹ OP 22:82. “The understanding begins with the consciousness of itself (apperception) and performs thereby a logical act. To this the manifold of outer and inner intuition attaches itself serially and the subject makes itself into an object in a limitless sequence.”

defines as five acts, rather than merely two. Förster's sequential interpretation, which demands much freedom of interpretation with regard to the *Opus Postumum*, proposes that a supposed third act of self-positing determines my own existence as a corporeal organic being in space and time by realizing space as an object of the senses.⁶²² He thus argues that the third step proceeds by way of "the assumption of a universally distributed ether," and thus the hypostatization of space.⁶²³

Stephen Howard critiques Förster's five-step interpretation by arguing, that self-positing is the mere subjective part of the transition project, which must be read in its essential relation to the objective pole formulated by what he identifies as the ether proofs.⁶²⁴ Critiquing Förster's account, Howard argues that what is needed is a bridge between the objective and subjective poles, since without such a bridge neither of the pieces by themselves could make sense. Howard finds this bridge in Fascicles X and XI. I agree with Howard's critique of Förster, in the sense that the intricate series of steps in Förster's account treats self-positing in quasi-isolation and thus does not account for the dynamic nature of Kant's thought and how it works through problems across the different Fascicles. However, differently to Howard, who reads Fascicle VII in relation to the earlier Fascicles X and XI and in particular Kant's renewed engagement with physics, I have in the preceding discussion moved from Fascicle VII to the very last Fascicle I. While Howard identified the objective pole as ether, I have argued that Kant's engagement with ether transitioned into world in Fascicle I with the end of the manuscript.⁶²⁵

Similar to Howard, then, who argues for the necessity of a transition within the transition-project that is the *Opus Postumum* as a whole, I have argued in the preceding pages that Kant himself subjected the two acts of self-positing to a transition. And it is this very transition which, I argue, ensures reason's relation to the world and, furthermore, position in a world of objects. Differently to Förster, who's five-step program sequentially makes its way from the most universal to the most concrete - the object of pure thought until finally the embodied subject in the sensible world - I have argued that one is to approach

⁶²² Förster, *Kant's Final Synthesis*, p.105. The consecutive fourth and fifth steps are considered by Förster to consist of inserting the concept of ether into the sensible, and, finally, performing bodily actions initiated by the subject within this sensible world of forces. See p.111-112.

⁶²³ Förster, *Kant's Final Synthesis*, p.105, 109.

⁶²⁴ See Stephen Howard, 2019. "The transition within the transition: the *Übergang* from the *Selbstsetzungslehre* to the ether proofs in Kant's *Opus postumum*." *Kant-Studien* 110 (4), p.595-617

⁶²⁵ I will also engage with Fascicle X and XI, but only to lay open the details of the following discussion on self-affection. The transition, according to my argument, is located in Kant's discussion of the system of transcendental philosophy in Fascicle I.

self-positing from the middle, that is, reason and in specific technical-practical reason's idea of world as part of the system of transcendental philosophy. How, then, is it possible for Kant to avoid his own critique of Fichte and move from mathematics to philosophy, and thus from the mere a priori construction of time and space as infinite magnitudes to the consciousness of myself as a being in the world by way of the middle, that is, the transition, and what role does technical-practical reason play here?

Self-affection and appearances of appearances

The *Critique of Pure Reason* had famously introduced the idea that, in the a priori synthesis of time and space, the subject comes to affect itself. This is due to the fact that the forms of intuition are themselves nothing but the subject's forms of affectability (or object-receptivity). And while space is the way in which things can be given to me, time is thus the way in which I can be given to myself. As pure forms of intuition, time contains only the relations of succession, simultaneity and persistence in time, while space contains the relations of extension, motion and moving forces in space.⁶²⁶ “But for Kant, “through mere relations no thing in itself is cognized.”⁶²⁷ This means that the a priori form of space only concerns the place (*Ort*) of something, or its change of place, but cannot say anything concerning what is given and real (*gegenwärtig*) in that place. The same applies for the a priori form of time, which concerns only the temporal relations in which a representation can be set. Consequently, the pure form of time “does not represent anything except insofar as something is posited in the mind [*Gemüt*].”⁶²⁸ However, it is through this very activity of positing the relations of time in the mind that “the mind [*Gemüt*] is affected by its own activity, [...] it is affected through itself.”⁶²⁹ This means that the *Critique of Pure Reason* proposed that the subject comes to affect itself through the a priori synthesis of time and space, through which it can then, in a second step, know something more. And that something is myself, not how I am in itself, but only how I appear to myself.

Similarly, in the *Opus Postumum* Kant writes that “our sensible intuition is, initially, not perception (empirical representation with consciousness), for a principle of positing oneself and of becoming conscious of this position precedes it; and the forms of this positing of the manifold, as thoroughly combined, are the pure intuitions, which are called

⁶²⁶ CPR B67.

⁶²⁷ CPR B67.

⁶²⁸ CPR B68.

⁶²⁹ CPR B68.

space and time.”⁶³⁰ In the act of construction of the pure forms of intuition the subject is thus said to become conscious of itself, in the position of time and space as forms of self-positing: “das zusammensetzende Subject erscheint sich selbst in der Zusammensetzung nach Prinzipien a priori.”⁶³¹ Thus, the subject is also here said to be at once the cause of affection and that which is affected, at once the active cause of construction of the forms of self-positing and at the same time that which appears to itself as the object of this construction. But, differently to Kant’s claim in the *Critique of Pure Reason*, where the subject was said to appear to itself just “like other phenomena,”⁶³² the subject in the *Opus Postumum* no longer appears to itself just like any other phenomenon. In fact, the subject is now said to appear to itself unlike anything else. Introducing an inner distinction into appearances, the subject, Kant claims, now appears to itself as an appearance of an appearance.

With the *Opus Postumum*, Kant’s thought on appearances (*Erscheinungen*) has thus undergone a fundamental change. Appearances have now become two-fold, in the sense of being internally differentiated, as there are appearances of a first and second order, which Kant also calls direct and indirect appearances, with the latter also called appearances of appearances (*Erscheinungen von der Erscheinung*). Appearances of the first order, or direct appearances, represent objects in relation to how the subject is affected by them, and thus as the way in which (undetermined) objects of empirical intuition are given to us. Appearances of the first order are claimed by Kant to be the objective, physiological mode of representation.⁶³³ The subject that appears to itself, however, is said to be an altogether different kind of appearance. It is the “Erscheinung des sich selbst affizierenden Subjects,”⁶³⁴ and thus the way that the subject appears to itself and becomes conscious of its own activity of self-positing.

In many ways, the discussion of self-affection is the precursor to that of self-positing. Self-affection and the grades of appearances are first discussed in Fascicles X and XI, written

⁶³⁰ OP 22:420. “Our sensible intuition is, initially, not perception (empirical representation with consciousness), for a principle of positing oneself and of becoming conscious of this position precedes it; and the form[s] of this positing of the manifold, as thoroughly combined, are the pure intuitions, which are called space and time (outer and inner intuition) [...]”

⁶³¹ OP 22:368. “[...] the composing subject appears to itself in the composition according to principles, and so, in a system of perceptions (as forces of matter affecting the senses), progresses *a priori* toward the possibility of physics.” For the relation between second order appearances and the possibility of physics see Beiser, *German Idealism: The Struggle against Subjectivism, 1781-1801*, p.203-204; Lehmann, *Kants Nachlasswerk und die Kritik der Urteilskraft*, p.366-367.

⁶³² CPR B155.

⁶³³ OP 22:320.

⁶³⁴ OP 22:367. “[...] that is, appearance of the self-affecting subject (hence indirect).”

between August 1799 and April 1800, and thus in the period immediately preceding Kant's engagement with self-positing in Fascicle VII. As Frederick Beiser points out, the term *Selbstsetzungslehre* (doctrine of self-positing) is a scholarly anachronism, as Kant himself never used the term in the substantive grammatical form, while he did frequently refer to self-affection.⁶³⁵ Further, it is essentially out of his discussion on self-affection that the systematic discussion on self-positing (in Fascicle VII) and finally Transcendental philosophy (in Fascicle I) emerged. The discussion on self-affection has, similarly to self-positing, been the focus of much scholarly debate.

In the literature on self-affection, particular attention has been paid to the question of whether in his final work Kant confirmed at last there to be a double-affection at play, with the empirical object affecting the empirical subject, while the thing-in-itself acts on the transcendental subject. This point of view is famously held by Adickes, Kemp Smith and Vaihinger.⁶³⁶ Lehmann, on the other hand, reads self-affection in the *Opus Postumum* as a final testament to Kant's abolition of the thing-in-itself, interpreting self-affection and affection as two sides of the same coin.⁶³⁷ My focus in the remainder of this section, however, is limited in scope, as I will not intervene in the systematic discussions on self-affection in the *Opus Postumum* put forward by readers like Adickes, Lehmann, and Förster. Instead, I would like to focus the remainder of this chapter on the relation between appearances of appearances and technical-practical reason, that is how what first appeared under the name of second order appearances in Fascicles X and XI relate to technical-practical reason and the original image (*Urbild*) of the world. I consider this to be possible, since my argument here is that, leaving the question of the source of the affection to the side, the resulting appearance of an appearance must in essence be understood as the appearance of a technical-practical subject in the world.

The preceding discussion has shown how technical-practical reason engages in the act of constructing the forms of intuition by means of the power of imagination. In the a priori synthetic presentation of the concept of magnitude in intuition, the subject is said to affect itself, and through this affection be given to itself as an appearance of an appearance. Appearing to oneself as a second order appearance means that I appear to myself in the act of spontaneously constituting myself into an object by means of the construction of pure

⁶³⁵ Beiser, *German Idealism: The Struggle against Subjectivism, 1781-1801*, p.201.

⁶³⁶ See Hans Vaihinger, 1884. *Zu Kants Widerlegung des Idealismus in Strassberger Abhandlungen zur Philosophie*. Freiburg: Mohr, p.145; Adickes, *Kant's Opus Postumum*, p.293, Norman Kemp Smith, 2012. *A Commentary to Kant's Critique of Pure Reason*. Charleston: Forgotten Books, p.607.

⁶³⁷ Lehmann, *Kants Nachlasswerk und die Kritik der Urteilskraft* p.364.

intuition. While a first-order appearance is the “undetermined [object] of an empirical intuition,”⁶³⁸ and thus the representation of an object of sense ordered and placed in intuition but not yet thought according to the unity of the categories, the second-order appearance only concerns the formal relations of an object to the subject, rather than any given empirical intuition of an object, and thus includes the subject of appearances itself as part of that which appears. To appear as “part” of the world of appearance, however, already necessarily means that the subject is now located in and occupies a position within the world of appearances, albeit at this point only considered formally. And only because the subject is located in and occupies a position within the world of appearances can the subject then have appearances of the first order.⁶³⁹

What thus steps appears, under the name of a second-order appearance, is the technical-practical subject, which posits itself by positing the pure forms of time and space in order to be able to be given objects in a second step. This means, however, that the transcendental forms of intuition and understanding, and thus that which the subject contributes (posits, makes, brings forth) for the cognition of given empirical things, are now able to appear to the subject under the name of an appearance of an appearance.⁶⁴⁰ Consequently, Kant writes that “Erscheinung von einer Erscheinung ist das wodurch das subjective objective gemacht wird.”⁶⁴¹

To have an appearance of an appearance is thus the reflective self-consciousness of the technical-practical subject in the process of positing itself, by means of positing space and time for the purpose of orienting itself within and cognizing the world. Thus while we cannot learn anything about any given thing by way of second order appearances, we do learn about our relation to any possibly given thing and our place in the world as a whole. Technical-practical self-positing thus determines the world as *mundus*,⁶⁴² the world “im Raum und der Zeit [...] zusamt dem Subject (der Mensch) welches selbst ein Theil der Welt ist.”⁶⁴³ And the human, that appears to itself as part of this spatio-temporally determined world is, importantly, the technical-practical subject.⁶⁴⁴

⁶³⁸ CPR A20/B34.

⁶³⁹ See Lehmann, *Technik der Natur*, p.293.

⁶⁴⁰ OP 22:477. “[...] das Subjekt affiziert sich selbst und nimmt das wahr „was es selbst in der (sic!) empirischen Anschauung (Wahrnehmung) hineingelegt hat.”

⁶⁴¹ OP 22:363.

⁶⁴² OP 22:48.

⁶⁴³ OP 21:58.

⁶⁴⁴ Compare Lehmann, *Technik der Natur*. p.293.

CHAPTER 4.5 Conclusion

Thinking back to the beginning of this chapter, it becomes clear that technical-practical reason was subject to a radical transformation between its articulation in Kant's moral philosophy and the *Opus Postumum*. Technical-practical reason initially referred to the technical-practical imperatives, and thus rules, of skill and counsels of prudence,⁶⁴⁵ concerning purposive actions not explicitly legislated by the categorical imperative. While already insisting that, properly speaking, these modes of purposiveness are to be dealt with internally to theoretical philosophy, a position explicitly repeated in the *Critique of the Power of Judgment*,⁶⁴⁶ the relation between technical-practical reason and theoretical knowledge oscillated between one of mere application and one of the technical power of judgment in its relation to reason being a further condition of possibility for science.

As I have argued, in the *Opus Postumum* this very relation was explicitly articulated and further developed by Kant. Technical-practical reason, as I have shown, is responsible for legislating one part of the cosmological universe of all things constituted by reason in its unity. Bifurcating into moral-practical reason on the one side and technical-practical reason on the other, reason, in this two-fold use, was shown to be productive of ideas that function as original images (*Urbilder*) and provide the transcendental place of the sensible and intelligible worlds. Technical-practical reason was then specifically shown to bring forth the idea of world, which provides the stage and ground of the whole of all objects of sensible representation that can be given to us, while moral-practical reason brings forth the idea of God, which concerns the concepts of freedom, duty and right.

Consequently, and similarly to transcendental reflection, which searched for the belonging of any given representation to either pure reason or sensible intuition by means of the concepts of reflection, reason here introduces a fundamental distinction between God and the world. After the bifurcation of reason into the two wholes of God and the world, self-positing is subject to a two-fold treatment by, on the one hand, moral practical reason, and, on the other, technical-practical reason, with technical-practical reason concerning the self-constitution of the human within the world. Since there has hitherto been no literature on

⁶⁴⁵ GMM 4:416.

⁶⁴⁶ CJ 5:172.

technical-practical self-positing, I have in the following focused exclusively on technical-practical self-positing.

The remainder of the chapter showed how the positing of time and space, as at once forms of self-positing and forms of appearance, effected a self-affection and thus objectification of the transcendental conditions of experience, under the name of a second order appearance. Under the name of an appearance of appearance, the technical-practical subject was said to appear to itself as a technical-practical subject, and thus as situated in the world and engaged in the technical-practical construction of the formal relations that allow it to orient itself in the world and to cognize the world in its particular objects. Appearances of an appearance thus designate a specifically technical-practical self-consciousness, as it concerns the way in which the technical-practical subject appears to itself in the construction of the forms of appearance for the purpose of “having” appearances.

In a remarkable way, then, Kant has indeed granted technical-practical reason a fundamental place within the system of transcendental philosophy in his very last manuscript, the *Opus Postumum*. Self-making, self-positing, and self-determination are acts that take place in both the practical domain and the theoretical domain, at once the responsibility of both moral-practical and technical-practical reason. In effect, the very process of self-positing is what unifies reason in its two uses, together making up the system of ideas called transcendental philosophy. Thus, both technical-practical and moral-practical reason are explicitly characterized as autonomous, with theoretical and technical-practical reason being no longer restricted to mere self-legislation. “Transc. Philos. ist die Autonomie der Ideen,”⁶⁴⁸ “das Selbstgeschöpf (autonomie).”⁶⁴⁹ The concept of autonomy is thus effectively no longer restricted to giving the law to oneself. Rather, reason, in both its technical-practical and moral-practical uses, is said to engage in the autonomous bringing forth of ideas and the further acts of self-making within the ideas of world and God.

⁶⁴⁸ OP 21:79. “Transcendental philosophy is the autonomy of ideas, insofar as they form, independently of everything empirical, an unconditional whole, and reason constitutes itself to the latter as a separate system.”

⁶⁴⁹ OP 21:100.

Conclusion

The beginning of this project was marked by Heidegger, Simondon, and Stiegler's forceful claim that since its very beginnings in ancient Greece, philosophy, in its canonical form, had constituted itself by way of distorting, repressing, and ultimately forgetting technics, referring to both the domains of skills, tools, instruments and machines, and to technology, the scientific meta-discourse on technics. Built on the exclusion of technics, philosophy was thus diagnosed as being structurally incapable of seeing, understanding, or thinking it. At the same time, technics was not only characterized as philosophy's ultimate obstacle. It was also said to pose philosophy's ultimate possibility: for Heidegger, Simondon, and Stiegler, if philosophy is to play a role in what has without doubt become a technological world, then it must reconstitute itself anew, only this time in its essential relation to technics. Technics thus concerns nothing less than the future of philosophy as a whole.

At the center of philosophy's technical exclusion, oblivion, and repression, Heidegger, Simondon, and Stiegler, positioned Kant as modern philosophy's most prominent techno-problematic representative. Kant's role, as I have argued, was paradoxical. On the one hand, for Heidegger, Simondon, and Stiegler the philosophical task of thinking technics essentially meant overcoming the transcendental limits to knowledge so forcefully articulated by Kant, since transcendental philosophy was diagnosed as philosophy's limit of thinking technics. On the other hand, I have shown that Heidegger, Simondon, and Stiegler's own technical thought relied each in its own way on a problematic reading of Kant, according to which Kant implicitly articulated fundamental aspects of the modern concepts of technics, without, however, self-reflexively understanding the nature of his own insight.

Contra Heidegger, Simondon, and Stiegler, the explicit aim of my project has been to lay out how technics formed an explicit object of inquiry for Kant from as early as his critical philosophy until his very last, unfinished manuscript, the *Opus Postumum*. I have shown that already in the *Critique of Pure Reason*, Kant's notion of theoretical philosophy was quite literally *of* technics, in the sense that it was at once constituted in opposition to, as

well as made possible, pinned down, and propped up at decisive moments by technics in different forms and appearances. The *Critique of Pure Reason* was shown to be fundamentally constituted against instrumental reason, while at the same time secured by the hidden art of schematization and the disciplining of reason's talent of exteriorization, namely, its technics. The *Critique of the Power of Judgment* developed this positive notion of technics first encountered in the *Critique of Pure Reason* further under the name of a technics of nature and a technical power of judgment, until the *Opus Postumum* finally articulated the full extent of the relation between technical-practical and theoretical reason.

This means, firstly, that the designated systematic place of technical-practical reason is no longer within empirical philosophy, as technical-practical reason is now discussed alongside theoretical reason and moral-practical reason as a pure faculty, meaning that, according to the *Opus Postumum*, there is such a thing as a pure, transcendental use of technical-practical reason. Secondly, however, this pure technical-practical reason has further consequences for reason as a whole. The *Critique of Pure Reason* had famously restricted theoretical reason to merely negative use. The *Opus Postumum* retained this legislative role in the sense that reason employs ideas for the sake of self-legislation. These ideas are at the same time, however, shown to be reason's very own products, as the idea of world is made by technical-practical reason, and the idea of God by moral-practical reason. And as if that was not enough, technical-practical reason's productivity further provides an answer to the enigma of time and space, since these intuitive forms are constructed by nothing else than technical-practical reason. Technical-practical reason is thus not only claimed to make the original image (*Urbild*) of the world, but also time and space for the sake of being able to receive, in the sense of being given, empirical objects of the sensible world.

I have argued, then, that according to the *Opus Postumum* the subject of cognition is essentially technical-practical, as it “creates the elements of knowledge of the world himself, a priori, from which he, as, at the same time, an inhabitant of the world, constructs a world-vision [*Weltanschauung*] in the idea.”⁶⁵⁰ The technical-practical subject was thus shown to first make, posit, and synthesize an archetype of this world “in his own self.”⁶⁵¹ In the context of this effort of knowing the world by way of making it first in his own self,

⁶⁵⁰ OP 21:31 “Ein Cosmotheoros der die Elemente der Welterkenntnis a priori selbst schafft aus welchen er die Weltanschauung als zugleich Weltbewohner zimmert in der Idee.”

⁶⁵¹ OP 21:41

Kant calls the technical-practical subject *cosmotheoros*, a rare Greek neologism, that Kant most likely adopted from Christian Huygens's 1698 book of the same title. The technical-practical subject as *cosmotheoros* thus a priori makes the elements for the theoretical cognition of the world in his own self.

Consequently, while the *Critique of Pure Reason* had famously held the position that philosophy "is the science of the relation of all cognition to the essential ends of human reason (*teleologia rationis humane*), and the philosopher is not an artist of reason but the legislator of human reason,"⁶⁵² the *cosmotheoros* of the *Opus Postumum* is very much an "artist of reason", meaning that the *cosmotheoros* could also carry the name of *cosmotechnikos*, an artist or technician of the world. Differently to the total injunction against theoretical reason's talent of building imposed in the *Critique of Pure Reason*, I have shown how the *Opus Postumum* critically delineated the conditions of possibility under which technical-practical reason can both produce its own elements of knowledge and methodologically employ them. Having decisively elevated technical-practical reason from a problem of empirical philosophy without a need for a critique, to a transcendental place, the *Opus Postumum* thus indeed, as first proposed by Gerhard Lehmann, contains the outline to what would have been Kant's third critique of reason, that is, a critique of technical-practical reason.⁶⁵³ As such, it is my contention that Kant's critical restriction of instrumental reason at the outset of the *Critique of Pure Reason*, together with his slow, continued development of a critique of technical-practical reason in its own right, puts forth a decisive image of Kant as a thinker of technics.

While, on the one hand, this image of Kant as a thinker of technics challenges Kantian and post-Kantian philosophy in its omission of the meaning and role of technics in Kant's Transcendental Philosophy *tout court*, it also troubles the account of Kant put forward in the field of philosophy of technics, exemplified by the discussions of Heidegger, Simondon, and Stiegler. As the preceding discussion has shown, Heidegger, Simondon, and Stiegler essentially read the history of philosophy as the history of philosophy's technical oblivion. And, in one way or another Heidegger, Simondon, and Stiegler have argued that, despite finding the seeds to their own technics-thinking in their engagement

⁶⁵² CPR A838/B866

⁶⁵³ Lehmann, G., 1969. *Die Technik der Natur*. In *Beiträge zur Geschichte und Interpretation der Philosophie Kants*. Berlin: Walter de Gruyter & Co. First published in 1938 in: *Forschungen und Fortschritte*, 14. Jg. Nr. 18, p.212-21. p.289

with and reading of Kant, ultimately, transcendental philosophy is philosophy's obstacle to thinking technics.

In opposition to Heidegger, Simondon, and Stiegler, I have shown that Kant explicitly read all philosophy prior to the *Critique of Pure Reason* as the history of instrumental reason, while he at the same time delineated the conditions of possibility for technical-practical reason, putting forward a transcendental concept of technics. Against Heidegger, Simondon, and Stiegler who diagnosed technics as Kant's systematic omission and thus as the one thing that Kant was structurally incapable of seeing, I have shown that the *Opus Postumum* explicitly carves out a space for technics in its transcendental form in the realm of appearance. Thus, what was critiqued by Heidegger, Simondon, and Stiegler as Kant's symptomatic omission is here explicitly investigated and laid open under the name of appearances of appearance. How so?

First introduced as providing the transition (*Übergang*) between metaphysics and physics in the *Opus Postumum*, the idea of world, Chapter 4 has argued, is heir to what Kant hitherto called ether. Similarly to ether, the idea of world is needed to provide the medium in which and through which a particular object of experience can be given and placed. Determining the original image of world further by means of positing time and space, the technical-practical subject then appears to itself in the act of self-positing in self-affection. Thus, what for Simondon is called technical operation, which takes place between the a priori and a posteriori, is here called technical-practical position. And while for Simondon, transcendental philosophy is incapable of accounting for technical operation, and while according to Heidegger Kant only symptomatically and thus implicitly laid open the technical nature of the transcendental, it is precisely this very center, that is the explicit catalyst of Kant's reformulation of the doctrine of appearances into a first and second order. While impossible within the first order of appearances, the conditions under which things can be given to us as things - the product of technical-practical self-positing - can now appear to us precisely under the name of second order appearances.

My reading of the *Opus Postumum* thus also challenged the narrow account of technics put forward by Heidegger, Simondon, and Stiegler, which essentially consists of a pre-industrial and thus artisanal *techne*, and an industrial, modern instantiation. As I have shown, Kant engaged two parallel genealogies of technics, at once the medieval scholastic notion of *Technologie* and the Aristotelian notion of *techne*. That he further shortened the term *Technologie* into the modernized German term *Technik* further shows that Kant was

aware of Beckmann's invention of the modern science of *Technologie* as Kant aimed to distance his (transcendental) discourse on technics from the applied science of technology. Kant's account of technical-practical reason problematizes and challenges the narrow, historically simple and universal notions of technics put forth by Heidegger, Simondon, and Stiegler as it falls outside the simple two-fold schema. Since essentially, what is at stake in the question on the relation between Kant and technics is also the much larger, encompassing question about the relation between philosophy and technics, I have shown that there do exist philosophical resources for thinking technics prior to Heidegger, Simondon, and Stiegler's interventions, despite their paradoxical inability to recognize them.

Finally, then, Kant's reformulation and critique of technical-practical reason in the *Opus Postumum* shows most clearly that he discussed technics as essentially part and parcel of a larger cosmological problematic. In surprising fashion, Kant's technics thinking must essentially be understood as the hitherto eclipsed quasi-predecessor of contemporary cosmo-technical debates that has since emerged out of Simondonian thought and is the subject of work from Isabell Stengers, through Bruno Latour, and onto Yuk Hui. Yuk Hui has argued in *The Question Concerning Technology In China* that at the root of the majority of twentieth century discourses on technics lies an anthropologically universal concept of technics, which means that technics is read as a universal principle that transcends geographical and historical specificities.⁶⁵⁴ His notion of cosmo-technics aims to critique the widespread hypothesis according to which technology is an anthropological universal. Instead, he aims to show how supposedly independent concepts like *techne*, *physis*, or *metaphysica* in fact receive their meaning and are translated in relation to their position within a larger cosmological system.⁶⁵⁵ Consequently, he argues that technology must not be understood as an anthropological universal, as it rather gains its definition and meaning in relation to a cosmo-technically specific past and present.

Kant's essential and fundamental contribution to cosmology in the *Critique of Pure Reason* was to reconfigure the world as given into the world as a task for reason and thus as *aufgegeben*. I have shown that in the *Opus Postumum*, the faculty at once charged with this task and charging itself with the task is technical-practical reason. What is specific and ultimately promising about Kant's account here, then, is that Kant argues that, and

⁶⁵⁴ Hui, Y., 2016. *The Question Concerning Technology in China*. Falmouth: Urbanomic.

⁶⁵⁵ Hui, Y., 2017. *Cosmotechnics as Cosmopolitics*. In e-flux #86 p.1-11

conceptualizes how any system with its inherent characteristics of universality and necessity only becomes possible within the world built by technical-practical reason. For Kant, then, science, technology, or any other system of necessity always already sets off in a world built by technical-practical reason. According to Kant the world of science is thus a technical-practical projection, in as much as the world of technics in the empirical sense is equally situated in a larger cosmo-technical projection, which is the first and most important responsibility of technical-practical reason.

Furthermore, however, the world built by technical-practical reason is also the (only) world in which the human can appear to itself, as a technical-practical subject, and thus as at once free and restrained by its relation to the world. As such, for Kant, there can indeed be no access to the world outside or before technical-practical reason, since the world is not a problem of aesthetics nor of any other pre- or post-rational modes of knowledge and engagement. Instead, the problem of the world is the fundamental task given to itself by technical-practical reason, as cosmology in the *Opus Postumum* has essentially become a problem of cosmo-technics.

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